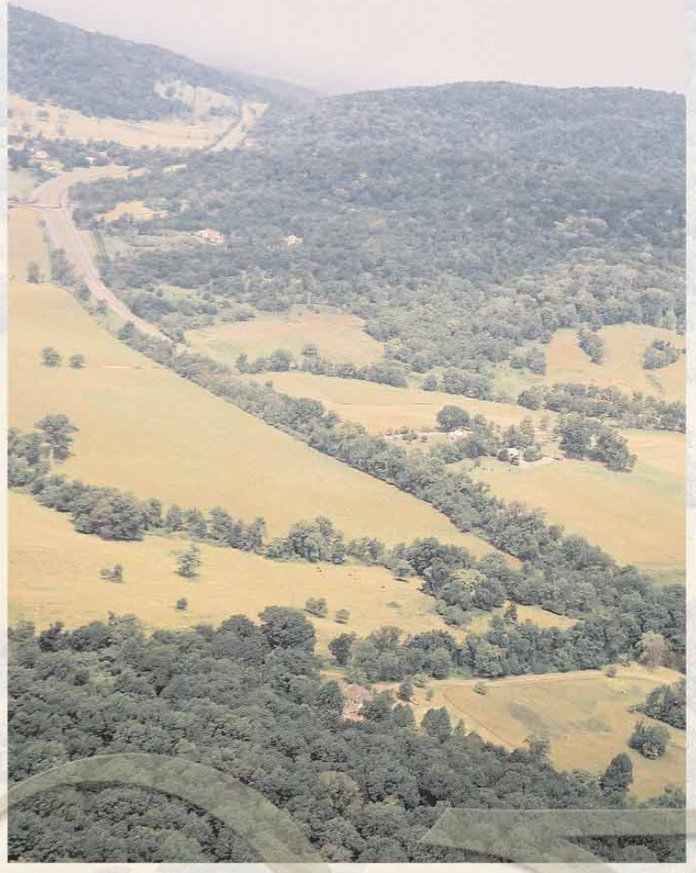

Virginia's Route 50

Traffic Calming Project

Design Memorandum

February • 2003

Virginia's Route 50

Traffic Calming Project
Design Memorandum

Fauquier and Loudoun Counties, Virginia

February • 2003

Prepared for and in Conjunction with:

Virginia Department of Transportation

and

The Route 50 Task Force

The Design Team:

H.W. Lochner, Inc.
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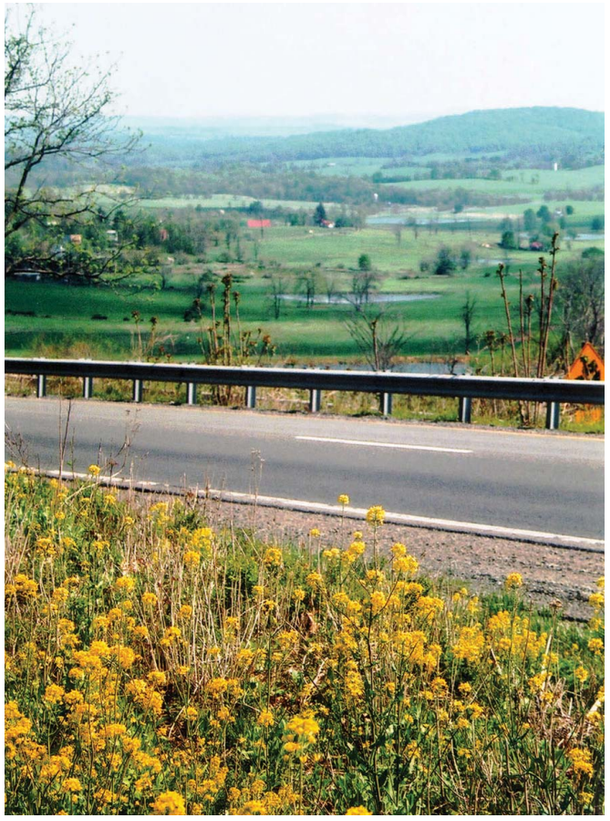

PREFACE

The Rural Route 50 Traffic Calming Plan began as a grass-roots effort to protect the natural and historic section of the Virginia Piedmont known as the Mosby Heritage Area. Motivated by external discussions of facilitating commuter travel through the area and understanding both the immediate visual and environmental impacts and long-term development implications of roadway widening and by-passes, residents united to form the Route 50 Corridor Coalition. This well organized, dedicated team of volunteers worked from early 1995 to spring of 1996, developing a comprehensive community planning process. Through a number of community workshops, the Route 50 Corridor Coalition developed A Traffic Calming Plan for Virginia's Rural Route 50 Corridor. *This award winning document outlined traffic calming measures for the 24-mile corridor, consisting of a consistent 50 mph two-lane rural roadway section between the communities, 35 mph transition areas near the entrances to the communities, and a number of traffic calming elements within the towns that reinforce a 25 mph speed limit.*

Through a partnership with the community appointed Task Force, VDOT is now working to convert the community goals into design plans. In 1998, VDOT received federal funding for this project though TEA-21 Federal Demonstration Funds. VDOT and the Task Force then went through an extensive process to select a multi-disciplinary design team to develop design plans for this rural traffic calming demonstration project.

Contracted by VDOT, the design team has worked with the Task Force, VDOT, and local citizens to update the community plan completed in 1996. The design process and recommendations developed through this study serve as an example to communities and state DOT's of how traffic calming measures can be implemented on state primary roads that serve small towns. The traffic calming measures recommended in this report are designed to meet AASHTO recommended standards, and have been implemented successfully in many other locations nationally and internationally. The range of traffic calming measures and landscaping elements selected blend in with the rural character and architecture of the area. The overall goal of the design is to improve safety for all users of the road while reinforcing the existing culture and character of the place as defined by the community.

This report is based on the principles established in the 1996 Route 50 Corridor Coalition report, but expands those principles to include and define design requirements for the landscaping and traffic calming measures. Based on these design requirements, a detailed Concept Plan for enhancements along the entire 24-mile corridor has bee prepared and is presented in this report.

While the $16.25 million provided by the Federal Highway Administration and VDOT will fund many of the traffic calming measures included in the Concept Plan, additional funding will be required to implement all of the elements defined in the Concept Plan. Many improvements recommended in this report will be implemented over time, and may require modification to support the ever evolving goals and needs of the community. This document serves as a long-range implementation tool, detailing both the purpose for the traffic calming measures and the general engineering requirements of each measure, providing the overall design direction for the project as it is constructed over time. The document also serve to communicate the overall community goals to policy makers and philanthropists that will fund those portions of the project beyond the original scope of the Demonstration Project funding.

This document is the first of four to be developed as part of the Route 50 Traffic Calming Project:

1.	**Design Memorandum:**	Documents design requirements, traffic calming measures to be used, and provides a Concept Plan for the 24-mile corridor
2.	**Design Development:**	Documents changes in the design made based on public input, survey, materials, etc.
3.	**Project Manual:**	Construction documents
4.	**Maintenance Manual:**	Maintenance specifications

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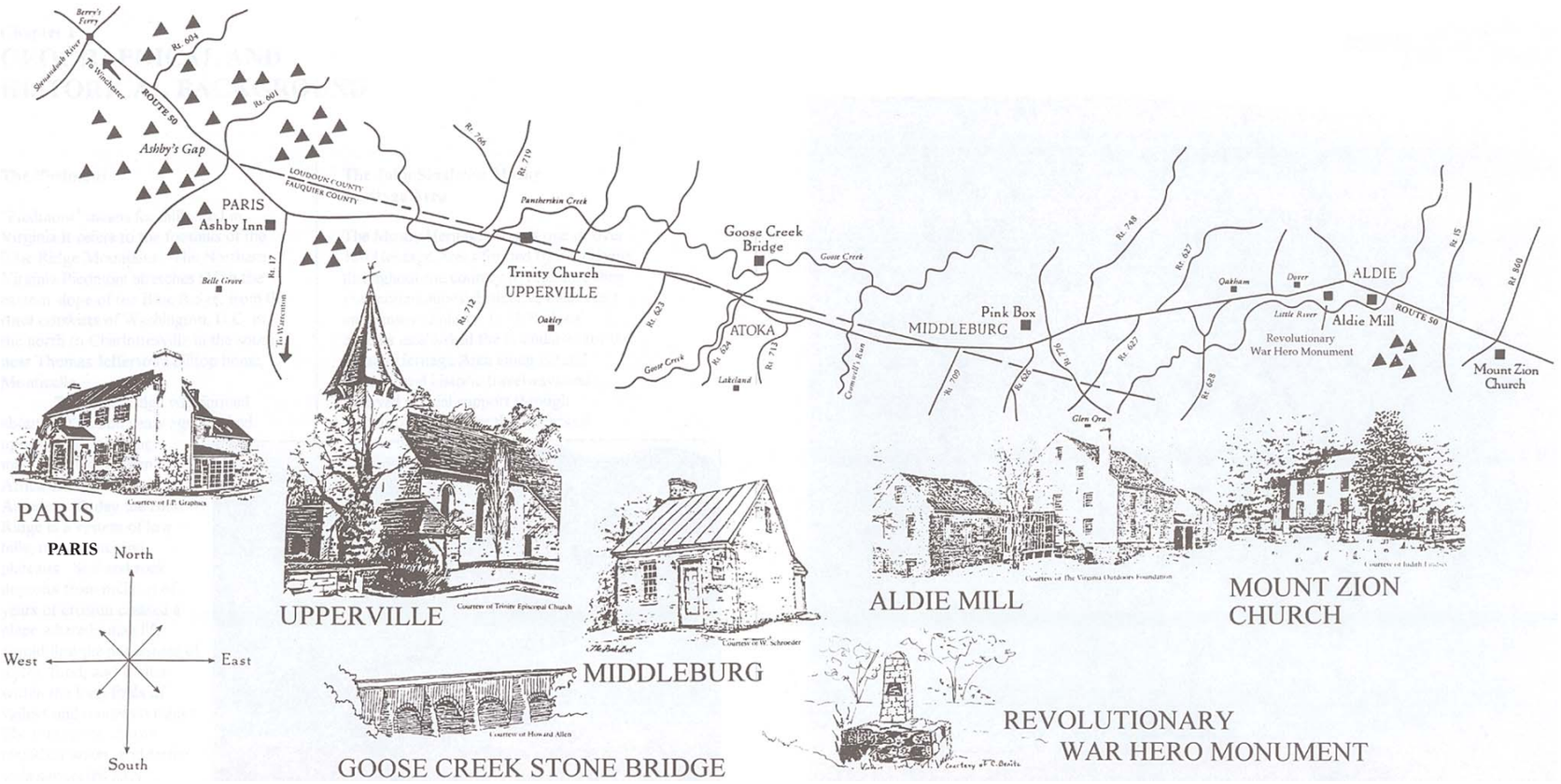
Introduction

The Rural Route 50 Corridor is a vibrant agricultural community and living link to this nation's past. Route 50, also known as John Mosby Highway, was first traveled by American Indians and later used by European settlers expanding westward. Located along an important trade route to the west, the towns along Route 50 provided services to local farmers and regional travelers. Three communities are located along this section of the Rural Route 50 corridor: Aldie, Middleburg, and Upperville. While each community developed at different points in history and in different forms, they share a common main street, now know as Route 50, and links to the rural economy and rural landscape that surrounds them.



DRIVE THROUGH HISTORY

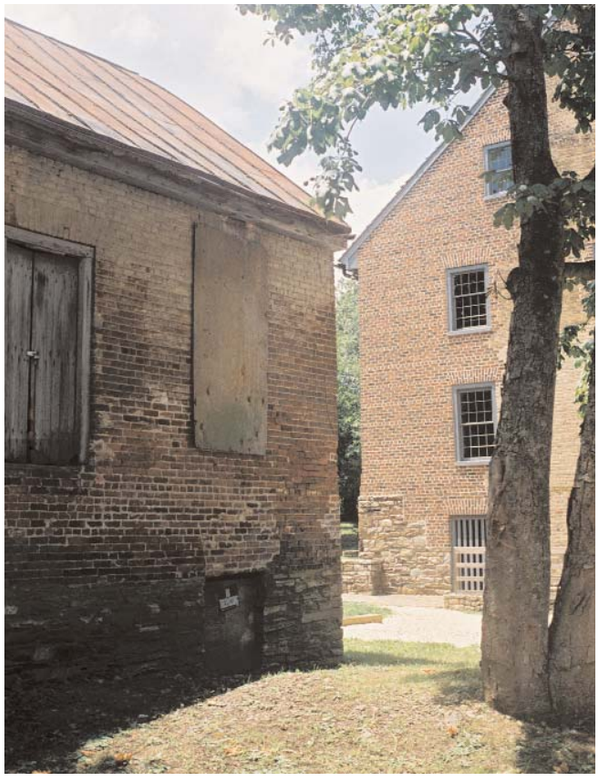
The Corridor - Approximately 24 miles between Paris and Mount Zion Church

Figure published in *A Traffic Calming Plan for Virginia's Rural Route 50 Corridor*

The historic significance of each of the communities within the corridor is well documented. The corridor was an important travel way during the nation's westward expansion and later during the Civil War, when it was the site of significant battles. Historic landmarks educate residents and visitors of the area's rich history. For example, Mercer's Mill, today know as Aldie Mill, has been restored as a functioning mill, teaching tourists and local residents of the economic history of the region; the Historic District of the Town of Middleburg has been designated a Virginia Historic Landmark and listed on the National Register of Historic Places; and the entire town of Upperville is a Virginia Landmarks Register and is listed in the National Register of Historic Places.

The communities along Rural Route 50 have maintained the scale, form and architecture laid out in their early development; however, this is not the case for the region that surrounds Rural Route 50. Approximately 40 miles from Washington DC and paralleled by three major highways (Interstate 66, VA Route 7, and the Dulles Greenway), suburban development is threatening the rural countryside surrounding the pristine area know as the John Mosby Heritage Area. The surrounding development has placed ever-increasing commuter pressure on rural roadways, including Route 50.

Community leaders understand that they are at a critical juncture. The role of Route 50 for the community and for the region is being redefined. Motivated by external discussions of facilitating commuter travel through the area, residents and local representatives educated themselves on the impacts of widening or otherwise altering the Rural Route 50 design to facilitate high-speed travel on the landscape and the community. Valuing natural and historic resources located within and adjacent to Rural Route 50 as unique, inspirational, and economically significant



Mercer's Mill
Aldie, founded in 1810 at the junction of two significant roadways, grew up around Mercer's Mill. Historic treasures such as Mercer's Mill play a significant role in the tourist industry, an $11 billion industry in Virginia.

Middleburg
Washington Street, the local name for Route 50, was fundamental to the town's founding. Developed as a coach stop, the town was laid out and incorporated in 1787. The Middleburg area is internationally known for its thriving equestrian industry.

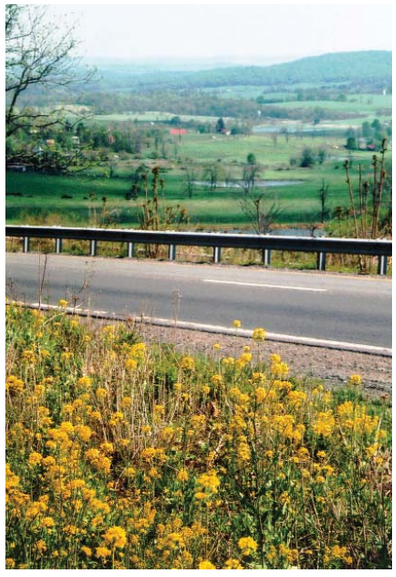
the community determined that, through its design, the roadway should facilitate the preservation of these elements and support activities that reinforce the intrinsic beauty of the John Mosby Heritage Area. The roadway design should balance the needs of the multiple users of the roadway, increase safety for all modes of travel, preserve and enhance views, provide educational opportunities for travelers, and reinforce the historic character of the place it serves.

To assure that Rural Route 50 will meet these goals today and into the future, the Virginia Department of Transportation in partnership with the Route 50 Traffic Calming Task Force are developing a rural traffic calming program for Rural Route 50. The program will introduce safety, beautification, and access modifications within the towns and the rural areas that balance the needs of the multiple users of the roadway, as well as design features that educate travelers of the unique historic, natural, and cultural elements found along the corridor.

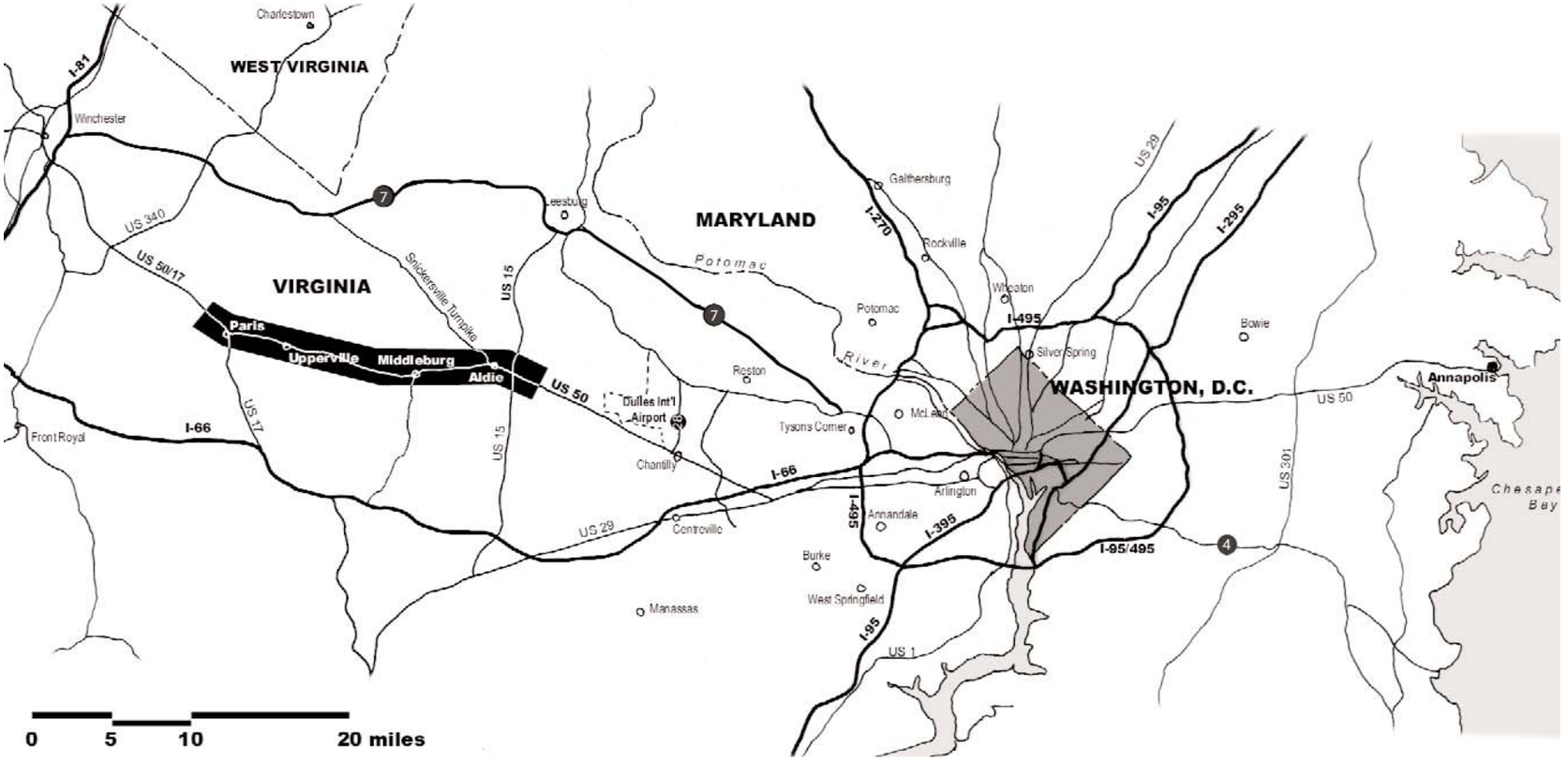
This handbook presents the design process, design requirements, and traffic calming measures developed for the Route 50 Traffic Calming Project as well as the Concept Plan that will guide the final engineering design.

Upperville
(Above) Upperville, founded in 1797, relied economically on the nearby Panther Skin Creek, used to turn millstones for grinding corn and wheat.

Monument to Sergeant Major John Champe, Revolutionary War Hero



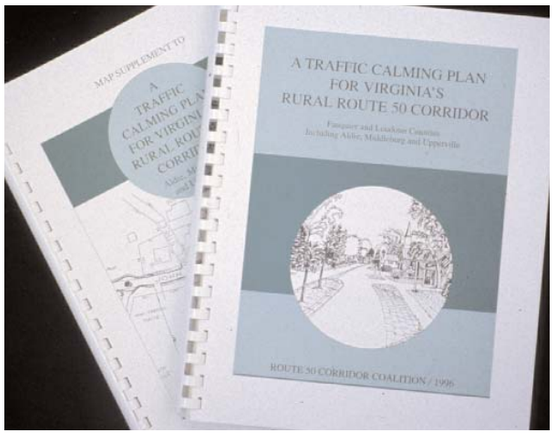
View of Sky Meadows



ROUTE 50 CORRIDOR - THE REGIONAL CONTEXT

Project History

Due to the proximity to Washington, D.C. and the expanse of suburban housing around the Rural Route 50 Corridor, significant pressure has been placed on Route 50 to serve commuter travel. In an effort to accommodate increased motor vehicle use, in 1994 the Virginia Department of Transportation (VDOT) developed a preliminary design to locate bypasses around Aldie and Middleburg. Residents and local community groups, understanding both the immediate visual and environmental impacts and the long-term development implications, voiced a strong and uniform disapproval of the proposed project. In September of 1995, local residents and community organizations joined together to form the Route 50 Corridor Coalition. Through an intensive public participation process, the Route 50 Corridor Coalition defined their vision for the roadway. In 1998, the plan developed through the community planning process was used to secure $13 million in federal Demonstration Funds for the design and construction of a rural traffic calming demonstration project. VDOT provided an additional $3.25 million in funding for the project. This handbook develops the parameters for the detailed roadway design that will bring the vision to life.



Community Goals and Objectives

In 1995, the Route 50 Corridor Coalition engaged the community in an interactive planning process. The process first focused on the strengths of the area, those elements that tie the residents to the place. The Coalition then detailed design and development characteristics that residents believed could diminish the quality of, or completely eliminate, these valued features. Based on intensive public discussion, the Route 50 Corridor Coalition defined the Vision Statement for the Rural Route 50 Corridor:

A scenic, unique, rural community in an historical, agricultural, quiet, and natural setting.

This Vision Statement is being used by the community to guide and assess land use planning and transportation decisions for the next 100 years. All future planning and development plans should support and help further this vision. The public participation process that defined this Vision Statement is detailed in the award winning report, *A Traffic Calming Plan for Virginia's Rural Route 50 Corridor.*

Goals

- Increase the quality of life,
- Improve the conditions for pedestrians,
- Incorporate the preference and requirements of the people using the streets and intersections,
- Create safe and attractive streets,
- Reduce the negative effects of motor vehicles on the environment, and
- Reinforce the historical, agricultural, and natural setting.

Objectives

- Slow traffic within the posted speed limits,
- Reduce collision frequency and severity,
- Improve the perception and reality of safety for non-motorized users of the streets,
- Reduce the need for police enforcement,
- Provide more greenery,
- Enhance the historical, agricultural, and natural setting,
- Increase access to main street land uses for pedestrians and car users, and
- Accommodate but not invite through traffic.

The Public Process

The Vision Statement, goals and objectives defined by the Route 50 Corridor Coalition provide both the foundation for and a constant guide to the detailed design of Virginia's Route 50 Traffic Calming Project. The conceptual plan developed in 1996 was used as a starting point. The design team continued discussions with the Route 50 Corridor Coalition, community groups, members of the farming and equestrian communities, public officials, commuters and interested parties. Based on the information gathered through these discussions and technical analysis, design requirements and traffic calming measures were developed. The recommended location and type of the traffic calming measures are depicted in the Concept Plan. Historical research, site reviews, surveys, and further public review will continue to be used to refine the traffic calming measures to specific sites.

Community Meeting, May 2001

Community Participation

May, 2001 Public Meetings

Public meetings held in Aldie, Middleburg, and Upperville.

Meetings with Interested Groups and Public Officials The design team met with a number of community groups including the Aldie Mill, the Loudoun and Fauquier Counties sheriff's offices, the Middleburg Police Department, the emergency services teams, the Prelude to Gettysburg group, Middleburg Town Council, the Route 50 Task Force, and Task Force Committees.

Design Charrette, July 2001

The design team met with members of the Task Force and VDOT to refine the conceptual plan developed by the community into a 24-mile Corridor Concept Plan.

Route 50 Task Force

Conceptual design from the charrette was presented to the Task Force July 30, 2001.

January, 2002 Public Meeting

Public meeting held in Middleburg to review updated conceptual sketches of traffic calming, signage, and streetscaping.

Community Meeting, May 2001

Roadway Context

Roadway Characteristics

Functional Classification: **Minor Arterial (Loudoun)**
Principal Arterial (Fauquier)

AADT (2001): **7,500-12,000**

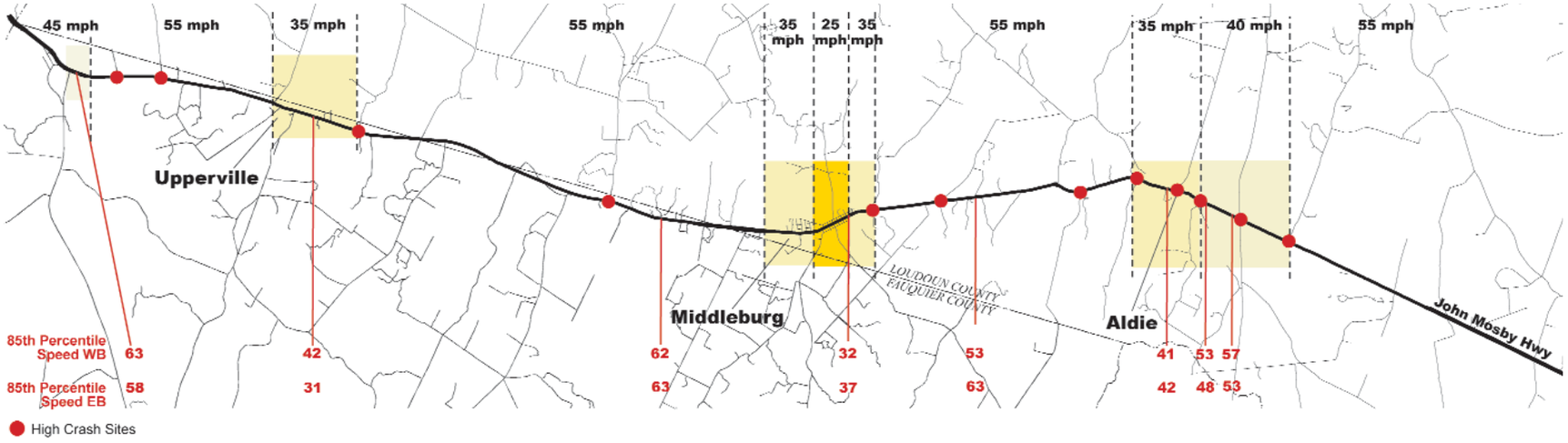
Percent Heavy Vehicles: **5.0.%**

A comprehensive field inventory was conducted to document existing roadway conditions. Data was collected on the posted speed limits, existing operating speeds, and crashes. Also, a profile analysis was conducted to calculate the design speed for roadway segments based on the stopping sight distance of the vertical curves. As can be seen from the figures below, in many locations the design speed is lower than the posted speed, while the 85th percentile travel speed is higher than the posted speed.

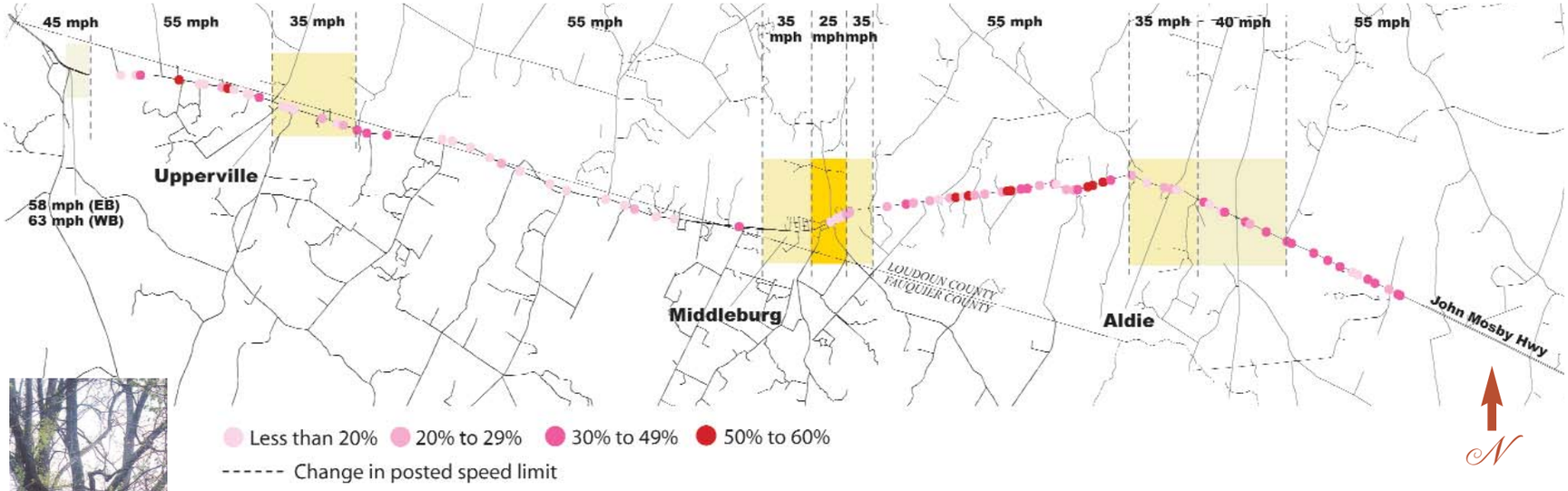
High Crash Sites (Sites with more than 10 accidents in the past five years)

Street Name	*# of Crashes (Past 5 years)*	*Accidents per Million Entering Vehicles*
Watson Road	66	2.43
James Monroe Highway	56	1.11
New Mountain Road	40	
Dumfries Road	28	1.44
Saint Louis Road	23	1.40
Champe Ford Lane	19	
Aldie Dam Road	18	1.04
Snake Den Road	15	
Macsville Road	14	
Tail Race Road	13	
Sam Fred Lane	12	
Greengarden Road	11	

85th Percentile Travel Speed and High Crash Sites



Percent Difference Between Posted Speed and Calculated Design Speed



Loudoun and Fauquier Counties Comprehensive Plan

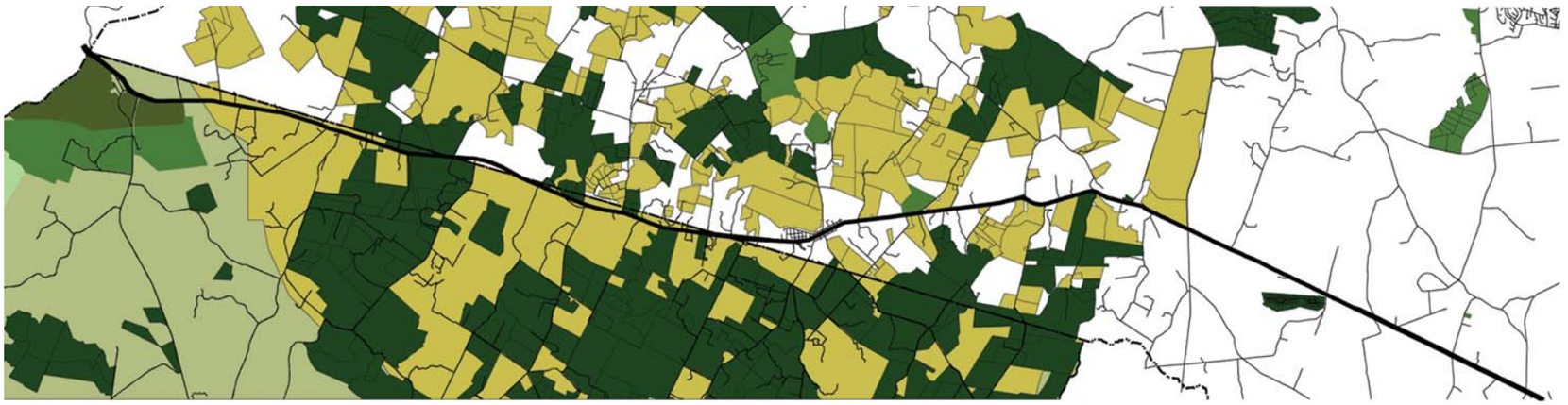
In the 2001 Revised Comprehensive Plan, Loudoun County designated about 67 percent of its land as part of the Rural Policy Area. Economic policies, residential policies, and infrastructure policies were implemented to protect the natural resources, rural economy, and centuries-old rural character found in the Rural Policy Area.

The Rural Route 50 Corridor is located in the Southern Tier of the Rural Policy Area. Rural economy uses are planned for this area. Residential densities of 1 unit per 50 acres are permitted, and can be increased to up to 1 dwelling unit per 20 acres when development is clustered in lots up to 3 acres, and the remaining land is placed in permanent conservation easement.

Loudoun County has defined the protection of the rural character and scenic quality of roads as fundamental to the rural strategy. With the exception of Route 7, which will be widened to six lanes, all roads in the Rural Policy Area will be kept as two-lane roads.

Fauquier County designates land use into three general categories: Planned Growth Areas, Conservation, and Agricultural. Fauquier County sets the preservation of historic and scenic resource, as well as the preservation of timberlands and agricultural lands in economically marketable units as goals for the conservation and agricultural areas. Cluster development is encouraged in these areas.

Surrounding Land Uses



Permanent Conservation Easement
Conservation Owners
Parks
Wildlife

Loudoun County Districts
Agricultural District

Fauquier County Districts
Agricultural District
Conservation District

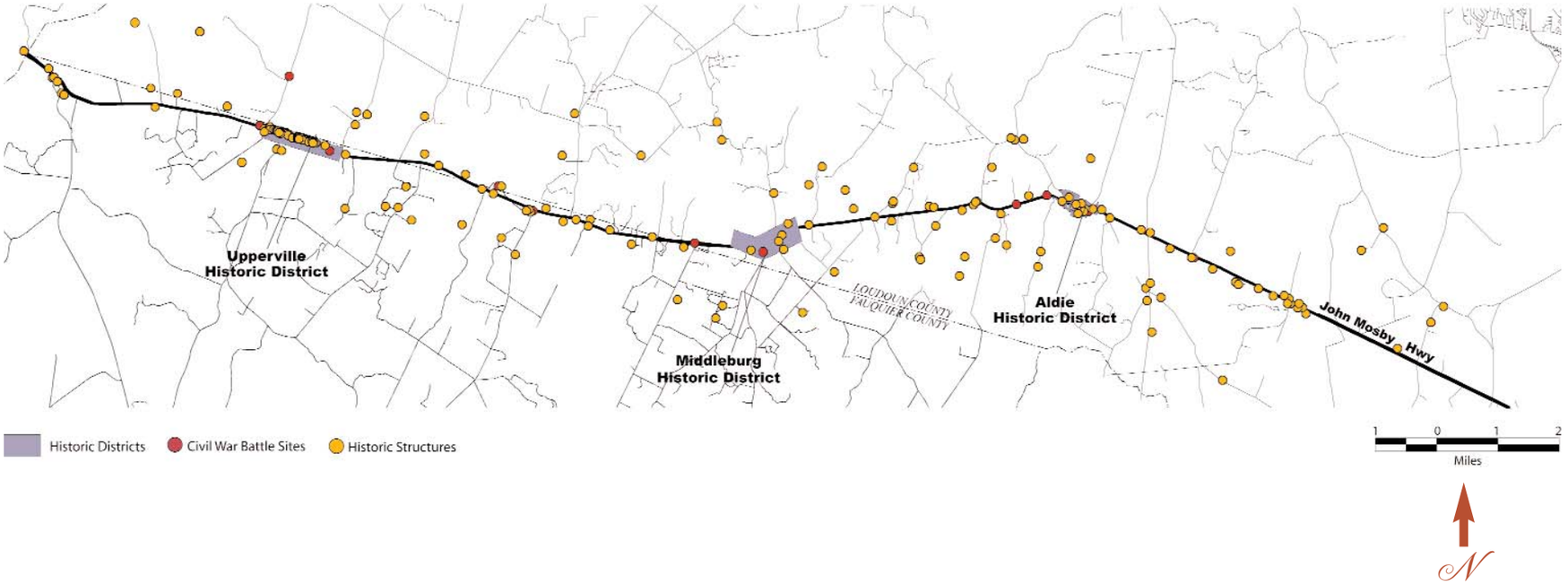
N

Historic Districts and Sites

Route 50 played an instrumental role in the nations westward expansion in the 1600s and the 1700s. The road later served as an important travelway during the Civil War, and was the site for a series of battles know as the Prelude to Gettysburg. The rich history is preserved in the buildings and rolling landscapes.

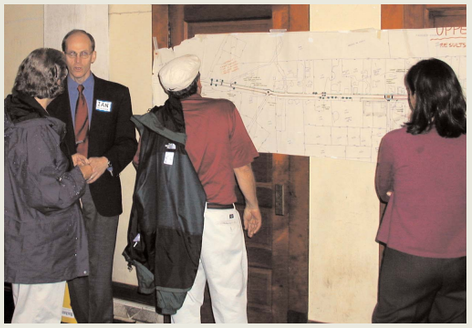
Historic site data was collected from the Archives of the Virginia Department of Historic Resources in Richmond, Virginia. The map below provides the general location of historic districts and sites surrounding Rural Route 50.

Historic Sites and Districts



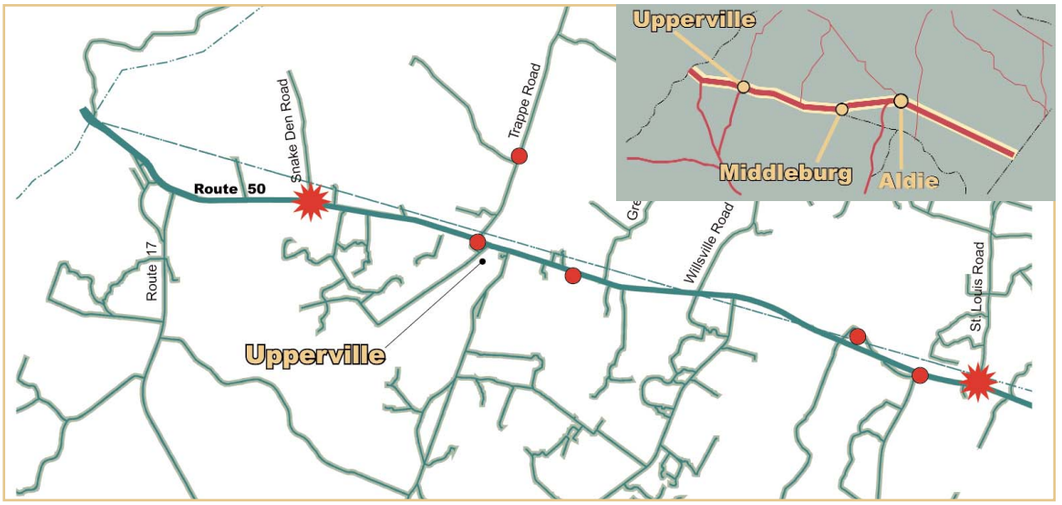
Community Input

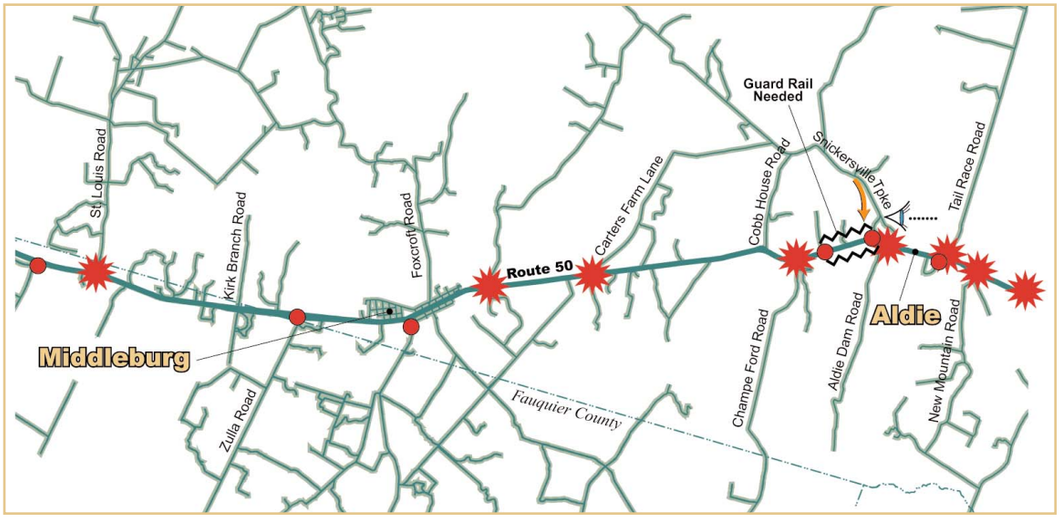
By meeting with business owners, residents, and community leaders, the design team identified safety concerns, potential access improvements to local sites, and unique opportunities to support existing land uses, highlight historic sites, and reinforce the rural character of the area. The following maps identify these opportunities.

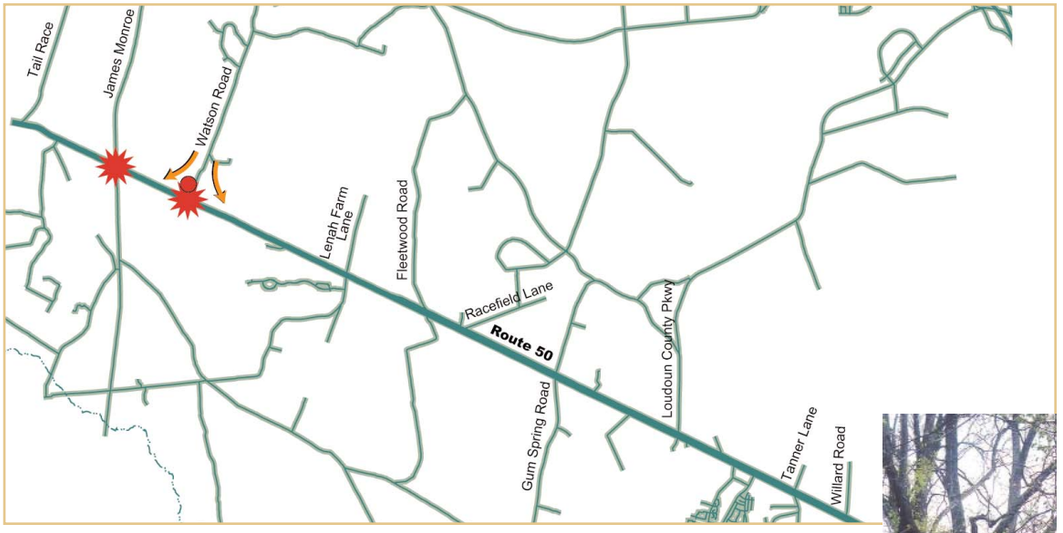


LEGEND

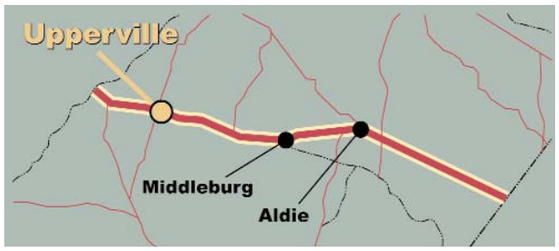
- Prelude to Gettysburg Battlefield Site
- High Crash Rate
- Pedestrian Crosswalk Requested
- Poor Sight Distance
- Difficult to Turn onto/off of Route 50
- Drainage Problem
- Additional Parking Needed
- Additional Lighting Needed







Upperville



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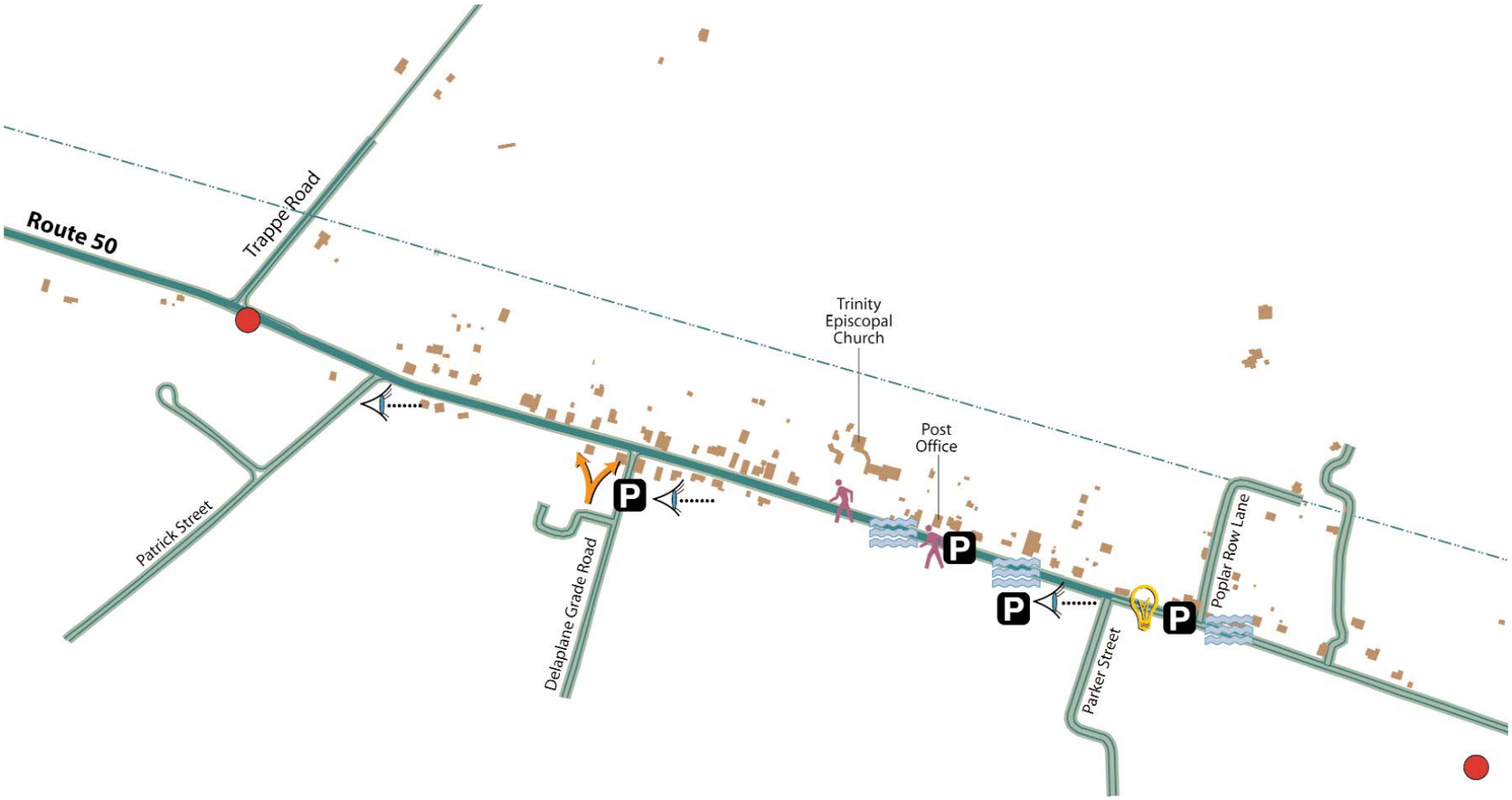
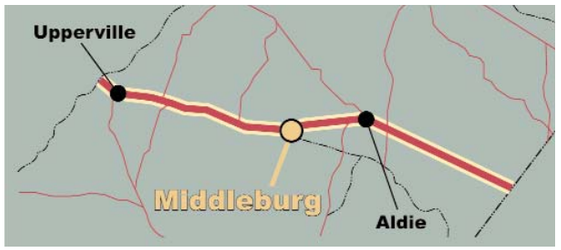


Middleburg



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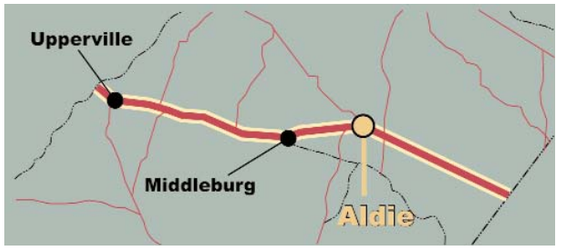
Aldie



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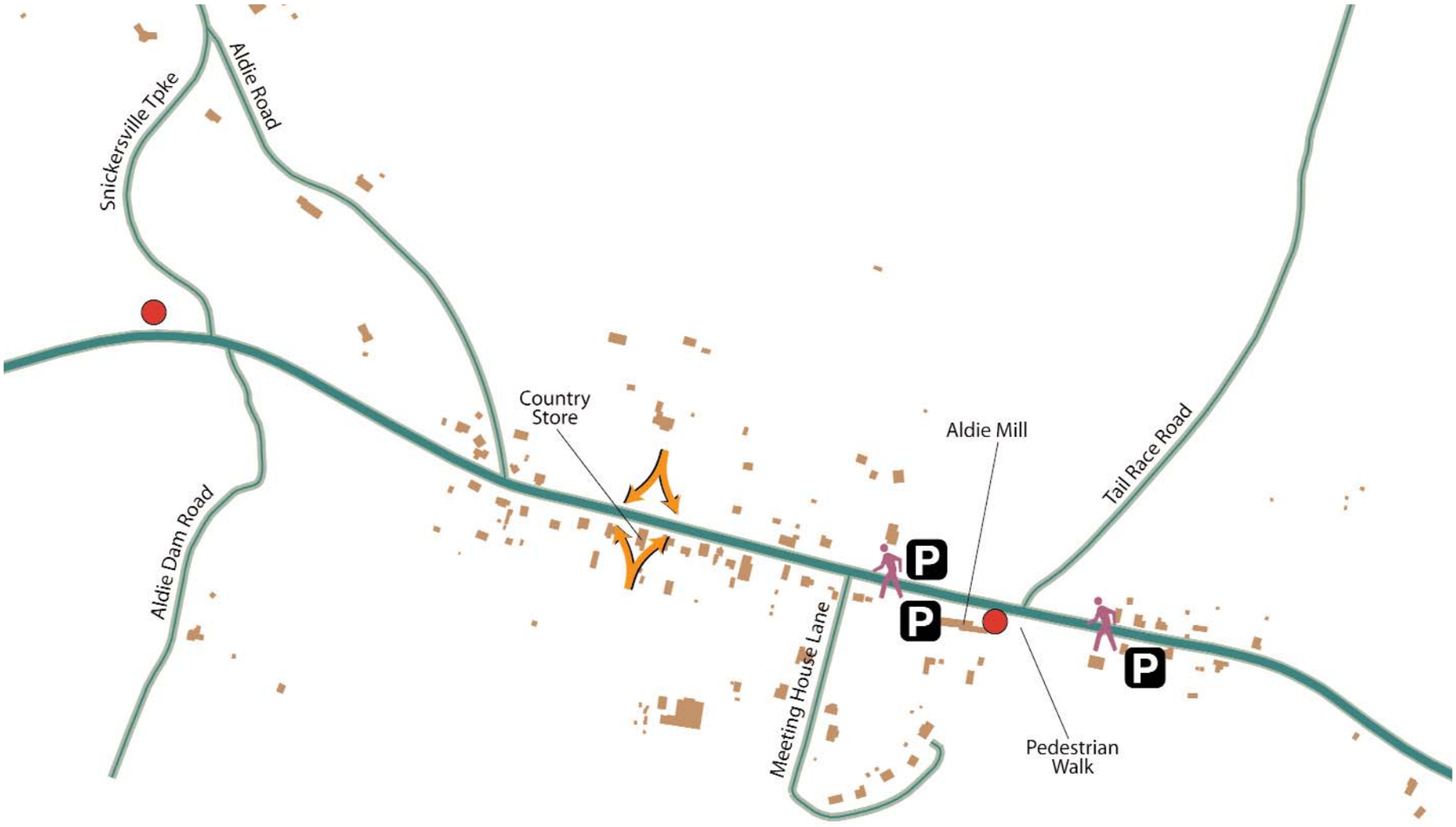


Design Requirements

A set of design requirements were developed based on the public input documented in *A Traffic Calming Plan for Virginia's Rural Route 50 Corridor*, and the intensive public involvement process included as part of this design process. These design requirements expand on the goals and objectives previously defined by the community, and documented earlier in this report. The design requirements identify specific measures that should be taken to meet the following design goals:

- ***Reinforce the agricultural and natural setting;***
- ***Reinforce historically significant elements;***
- ***Create safe and attractive streets;***
- ***Support multiple uses and users of the roadway; and***
- ***Increase the quality of life .***

The traffic calming measures, and their adaptations in the final engineering design of Rural Route 50 must conform to the design requirements outlined in this section.

- ***Reinforce the agricultural and natural setting***

- ***Create safe and attractive streets***

- ***Increase the quality of life***

- ***Support multiple uses and users of the roadway***

- ***Reinforce historically significant elements***

Design Goal: Reinforce the Agricultural and Natural Setting

Discussions with citizens and community groups underscore an intense interest in maintaining the historically rural character of the community.

Design Requirements:

Preserve/ Enhance Views:

Views from the roadway provide residents and travelers a connection to and an appreciation of the vast farmlands and preserved environmental lands found along the Route 50 corridor. Pulloffs will be provided at scenic views.

Minimize Use of New Landscaping in Rural Areas:

Landscaping treatments should be kept to a minimum in rural areas. Where needed to highlight the location of a rural traffic calming measure, the landscaping should complement the natural background. Landscaping, signage or other physical elements should not block views of historic buildings or open areas. Where trees are included in the design, they should create a canopy to provide a sense of enclosure, which will contrast with the open areas.

Reduce Sign Clutter:

Where possible, locate multiple regulatory and information signs on a single post, and maintain a sign inventory.

Reduce Visual Impact of Utilities:

Relocate overhead lines onto one side of the roadway, and bury utilities where possible.

Preserve views

Reduce visual impact of utilities

Introduce Safety Improvements that Preserve the Rolling Terrain:

Rolling terrain is characteristic of older, rural roadways, where the vertical cross-sections tend to more accurately preserve the natural topography of the land when compared to newer roadways designed for higher speeds. The rolling terrain also reinforces the posted speed limits, forcing travelers to pay attention as they drive.

The rural rolling terrain will be maintained. At intersections where safety is a concern, whenever possible, traffic calming measures that increase safety without flattening the existing vertical alignment of the roadway, will be introduced.

Enhance Shoulder Treatment:

In rural areas, the gravel shoulder treatment should be replaced with a stabilized turf shoulder or other element that provides a greater visual break between the travel lane and the shoulder and blends with the natural elements at the edge of the right-of-way.

Provide a Transition to Curb:

To alert drivers of an upcoming change in the road cross-section and the need to reduce their travel speed, the shoulder treatment will transition to a well-defined curb treatment on the approach to village, town, or rural traffic calming element. The transition should occur in stages to cue drivers to gradually decrease travel speeds.

Traffic calming element should be introduced to improve safety at Watson Road, where limited sight distance is provided.

Stabilized turf should treatment should be introduced to enhance the view from the road.

Introduce curb treatment to alert drivers that they are entering the village of Aldie.

Design Goal: Reinforce Historically Significant Elements

The Route 50 corridor, also known as John Mosby Highway, is celebrated for its rich history.

Buildings and historic sites located along the corridor offer educational opportunities for residents of the area and travelers of the roadway. The design of Rural Route 50 will provide safe access to these sites, and display historic sites as prominent elements along the corridor. The design should also reinforce traditional building forms and materials.

Design Requirements:

Provide Access to Historic Sites:

The roadway design will provide safe access to historic sites, provide safe viewing areas, and emphasize the prominence of historically significant buildings.

A local organization is developing an interpretative tour of battle sites for a group of battles known as the "Prelude to Gettysburg." There are seven battlefield sites located along Rural Route 50. The roadway design will provide safe access to these sites, provide a cohesive element between the sites, and emphasize the prominence of the sites.

There are also two narrative driving tours available on tape, produced by the Mosby Heritage Area Association, that discuss the rich history of the corridor. The pulloffs will allow tourist areas to stop, reflect, and safely enjoy these guided tours.

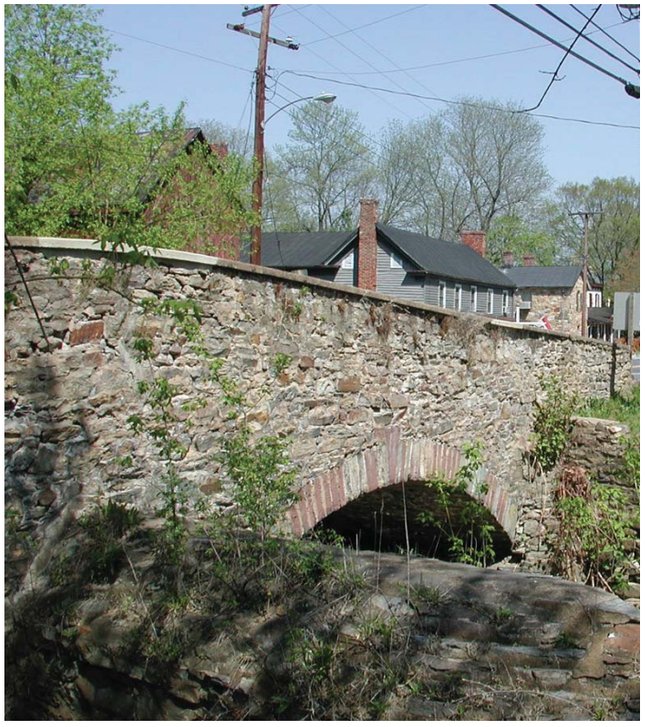
Goose Creek Stone Bridge

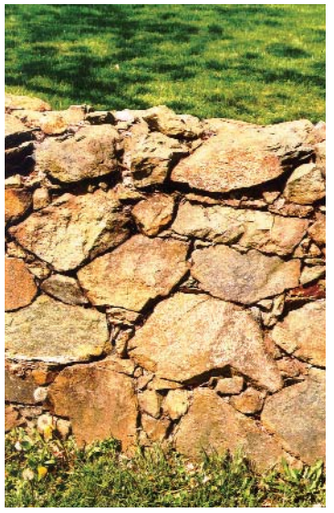
Historic markers

Enhance/Be Compatible with the Local Architecture in the Design:
The buildings found in Aldie, Middleburg, and Upperville span 200 years and include a variety of architectural styles, including Georgian, Federalist, Colonial Revival, and vernacular forms. The roadway enhancements will not detract from the prominence of the buildings, and will attempt to reflect the historic character of the community.

Use Traditional Building Materials:
The design of Rural Route 50 will preserve and reinforce the historic character of the roadway, using local and historic materials. The traffic calming measures, sidewalks, parking bays, and other roadway elements will be constructed of stones, bricks or other commonly used materials found along the length of the corridor.

Use Natural/ Traditional Landscaping Materials and Techniques:
Native vegetation will be used to landscape rural traffic calming measures. Landscaping in the towns and villages will draw from existing landscaping treatments, as well as tree plantings used in the past.


Historic bridge in Aldie


One of many historic stone walls along the corridor


Historic stone wall

Design Goal: Create Safe and Attractive Streets

Safety is the primary goal in all roadway design. When evaluating safety, consideration must be taken for each of the diverse uses and users served by Rural Route 50. The principal method of improving safety is to reduce motor vehicle speeds.

The commercial centers and public uses in Aldie, Middleburg, and Upperville are located on Route 50. To support community activities and assure the safety of residents and visitors, the design of Rural Route 50 should focus on pedestrian safety and comfort.

Design Requirements:

Self-enforce Desired Travels Speeds:
The physical design of the roadway will self-enforce the 25 mph posted speeds in the towns through traffic calming measures.

Provide a Continuous Sidewalk in Commercial Areas:
In areas with commercial and public uses, introduce a consistent and continuous sidewalk network.

Define Prominence/ Hierarchy of Pedestrians:
Delineate areas where pedestrians have priority over motor vehicles through the use of raised cross-walks, changes in the width of the paved surface, unique pavement treatments, and signage.

Increase Visibility of Pedestrians:
Use raised intersections and mid-block crossings to increase visibility of pedestrians and increase pedestrian comfort.

Buffer Pedestrians from Moving Vehicles:
Provide landscaping, on-street parking, or other physical separations between sidewalks and moving motor vehicles.

Route 50, Middleburg

Route 50, Upperville

Traffic calming measures must both address safety concerns and blend naturally into the rural area.

Design Requirements:

Provide Safe Access to and from Local Roadways:
Where safety considerations warrant, introduce traffic calming measures, to protect turning vehicles and alert drivers of intersection locations.

No New Traffic Signals:
Seen as out-of-context with the rural landscape, no new traffic signals will be introduced. Where a traffic control device is required, roundabouts are preferred.

Self-enforce Posted Travel Speeds:
The geometric design of rural traffic calming measures will reinforce the posted travel speeds where possible.

Use Landscaping to Highlight the Location of Intervention Measures:
Landscaping will be used to highlight the location of traffic calming measures. The landscaping will be compatible with the rural surroundings.

Reinforce Driver Expectation:
A combination of signs and changes in the road design will be used to alert drivers of approaching conflict points.

Accommodate Agricultural/ Equestrian Transport/Emergency Vehicles:
Design traffic calming measures to accommodate agricultural and equestrian vehicles.

Intersection of Route 50 with Aldie Dam Road and Snickersville Turnpike

Route 50, near Goose Creek

Design Goal: Support Multiple Uses and Users of the Roadway

Rural Route 50 serves residents, commercial uses, agricultural uses, public facilities, tourists, and commuters. Within its capacity as a two-lane road, Route 50 must accommodate and balance the unique needs, and assure the safety of, all roadway users.

Design Requirements:

Introduce Pedestrian Crosswalks:
Pedestrian crosswalks and bulb-outs will be introduced at intersections and in front of major pedestrian destinations.

Self-enforce Posted Travel Speeds:
To assure safe access to adjacent uses, the physical design of the roadway will self-enforce the posted speeds using traffic calming measures.

Add On-Street Parking:
Additional on-street parking will be introduced in the towns wherever feasible.

Designate Parking Spaces:
On-street parking spaces will be delineated to maximize the number of spaces. Distinct paving materials will be used to emphasize the location of the parking areas, and provide a visual break between the parking and the driving lanes.

Maintain Visual Prominence of Building on Street:
Streetscaping and traffic calming measures will support the visual presence of existing buildings.

Trinity Church, Upperville

Windsor Grap Building, Middleburg

Design Requirements:

Accommodate Agricultural/ Equestrian Transport/Emergency Vehicles:

All traffic calming measures along Route 50 will be designed to accommodate a WB-40 design vehicle (truck with semitrailer), which is 45.5 feet in length and 8.0 feet in width.

Provide Sufficient Clearance in Towns:

Provide sufficient clearance between streetscaping elements and the travel lane to assure that agricultural, equestrian transport vehicles, and emergency response vehicles can maneuver through these developed areas.

Agricultural vehicles

Horses housed near Route 50

Design Goal: Increase the Quality of Life

The communities located along Route 50 evolved through different circumstances and maintain their unique and rich heritage. Design elements will reflect the community identity and serve to announce these unique places to travelers. Traffic calming measures will be used to alert drivers of their arrival to a special place.

Design Requirements:

Space Posted Speed Signs Consistently: Signs announcing changes in the posted speed will be consistently spaced and marked for Aldie, Middleburg, and Upperville.

Construct Entry Feature: Entry features will be used to announce the entrances to Aldie, Middleburg, and Upperville. The size, form, and materials used will reflect the individual communities.

Incorporate Community Input in Design: The design of the entry features will be an interactive process, involving significant community input and review.

Entrance to Aldie

Route 50, looking west toward Madison Street

Design Requirements:

Use Landscaping to Enclose Street:
Landscaping will be used to designate the approaches to Aldie, Middleburg, and Upperville, and encourage the driver to slow down as they enter the communities. Landscaping will be used for commercial areas to support a comfortable and safe pedestrian environment.

Use Traditional Landscaping Elements:
Based on historic research, landscaping in the towns will draw from existing landscaping treatments, as well as reintroduce tree plantings used in the past.

Locate Curb and Gutter in Commercial Areas:
To reinforce the scale of surrounding land uses and increase the safety and comfort of pedestrians, curb and gutter will be provided in commercial areas.

Historic buildings, community facilities, and public spaces reflect the character and values of each community. The roadway design will facilitate access to and retain the prominence of these community amenities.

Design Requirements:

Locate Pedestrian Crossings in Proximity of Community Facilities:
Pedestrian crossings, either raised or delineated with special pavement material, will be provided to facilitate access to community facilities.

Provide Sidewalks Adjacent to Community Facilities:
Sidewalks will be provided to link community facilities to commercial buildings and other public uses.

Maintain Views to Public and Historic Buildings:
Landscaping and signage will be located in such a way as to preserve and enhance views to public and historic buildings.

Trinity Church, Upperville

Brick piers, Middleburg

Route 50, Middleburg

Traffic Calming Measures

This section provides schematic design plans for each of the traffic calming measures that will be used in the Route 50 Traffic Calming Plan. These traffic calming measures generally fall within AASHTO recommended requirements, and conform to accepted design standards for traffic calming measures found in the United States and around the world. The sketches provided in this section serve as templates for the detailed engineering designs. The recommendations presented should be evaluated on a case-by-case basis by the design engineer through the detailed design process. Recognizing that minor changes may be needed to accommodate specific site characteristics, the final design will be checked against the design requirements and the schematic design for traffic calming measures outlined in this report to assure that the final design is in conformance with the intent of the conceptual plan.

The Route 50 Corridor will contain three design areas:

Rural Areas

Rural areas are the roadways sections between towns. In these areas, the roadway serves as a collector for local travel and a regional facility for commute trips and tourist travel. The primary goal in this area is to increase safety. Where the posted speed limit is currently 55 mph, the posted speed limit will be lowered to 45 mph.

Transition Areas

Transition areas serve to alert travelers of that they are entering a community and allow them to gradually alter their travel speeds. The posted speed for this roadways section will be 35 mph.

Towns

In Aldie, Middleburg, and Upperville, the roadway serves a wider range of functions and a wider range of uses. To assure the safety and comfort of all users, the posted speed in these areas will be 25mph.

Rural Traffic Calming Measures

Rural traffic calming measures are designed to increase safety and self-enforce the posted speed limit. The traffic calming measures are designed to support and comply with the following design requirements:

- Preserve/ Enhance Views
- Introduce Safety Modifications that Preserve the Rolling Terrain
- Enhance Shoulder Treatment
- Provide Access to Historic Sites
- Use Natural/ Traditional Landscaping Materials and Techniques
- Self-enforce Posted Travel Speeds
- No New Traffic Signals
- Reinforce Driver Expectation
- Accommodate Agricultural/ Equestrian Transport/ Emergency Vehicles

Wide Splitter Islands

Location
- Intersections with high collision rates where ROW is available.

Geometric Design Elements
- Design speed of 50 mph.
- 11 foot wide travel lanes.
- 11 foot turn lane.
- Textured pavement for turn lanes.
- 22 feet wide raised median with mountable curb.
- Taper 1:25.

Landscaping Elements
- Landscaping located in raised median.
- Use to emphasize location of splitter island.

Signage
- Locate warning signs for splitter island on Route 50 as recommended in MUTCD.

Material
- Textured pavement - heritage concrete pavers/aged brick appearance.

Narrow Splitter Islands

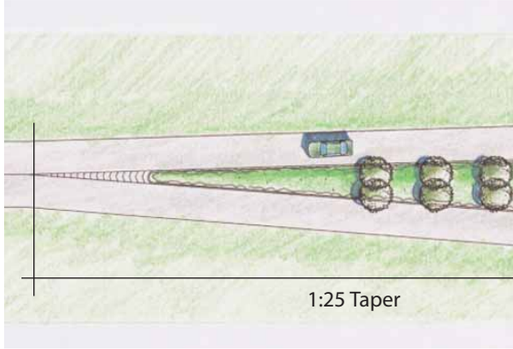
Location
- Intersections with high collision rates where ROW is constrained.

Landscaping Elements
- Landscaping located in raised median.
- Use to emphasize location of splitter island.

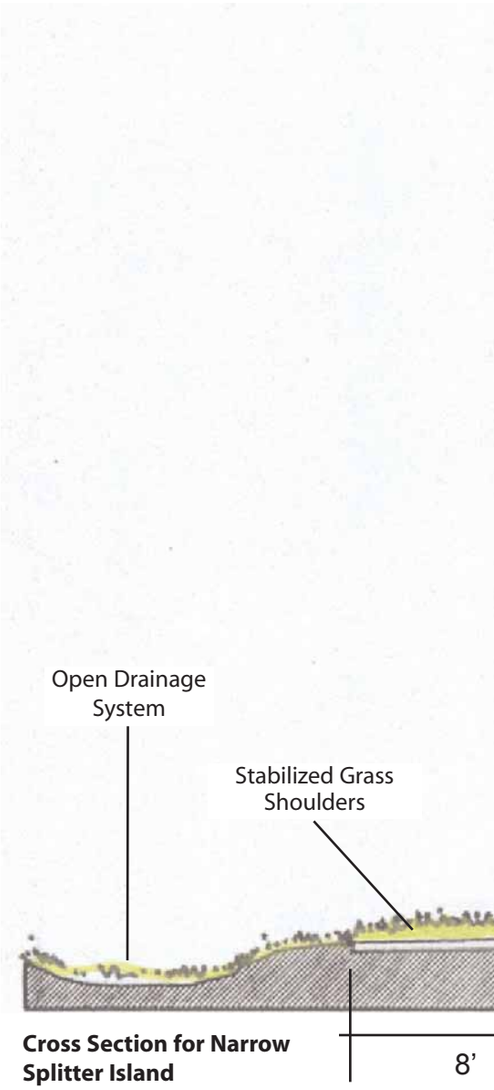
Signage
- Locate warning signs for splitter island on Route 50 as recommended in MUTCD.

Geometric Design Elements
- Design speed 50 mph.
- 11 foot wide travel.
- 11 foot turn lane.
- Textured pavement for turn lanes.
- 11 feet wide raised median with mountable curbs.
- Taper 1:25.

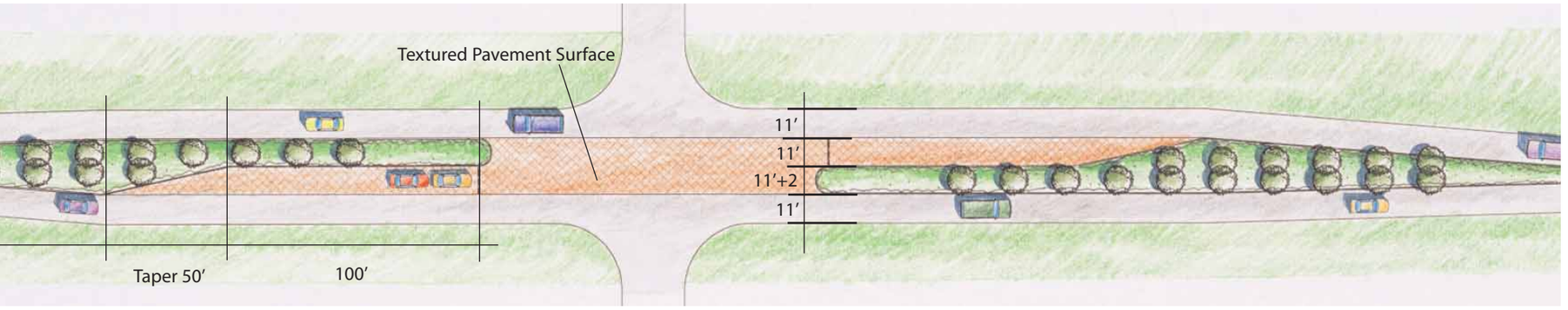
Material
- Textured pavement - heritage concrete pavers/aged brick appearance.



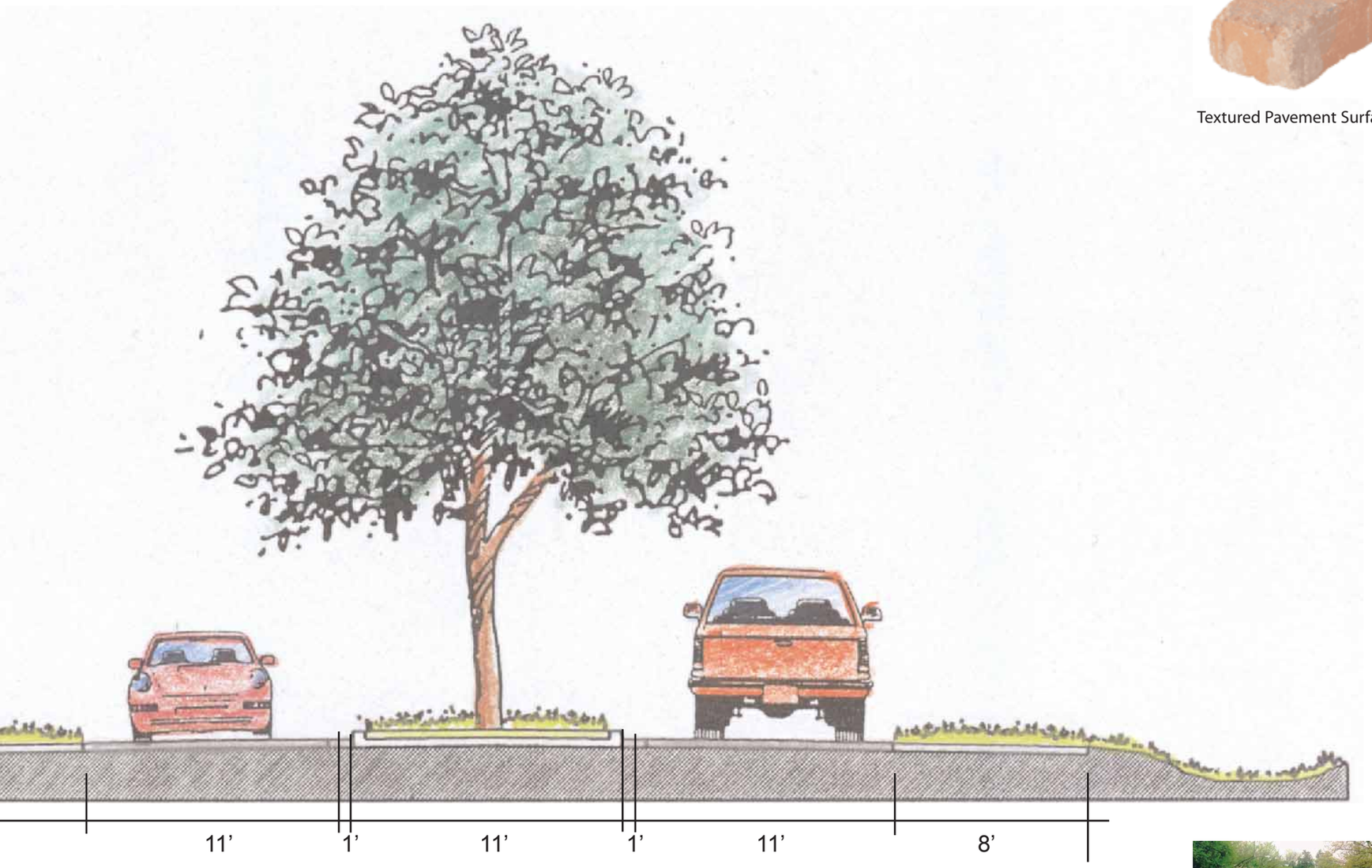
Plan View of Wide Splitter Island



Cross Section for Narrow Splitter Island



Textured Pavement Surface



Roundabouts

Location
- At intersections where a traffic control device is required to increase safety and/or accessibility.

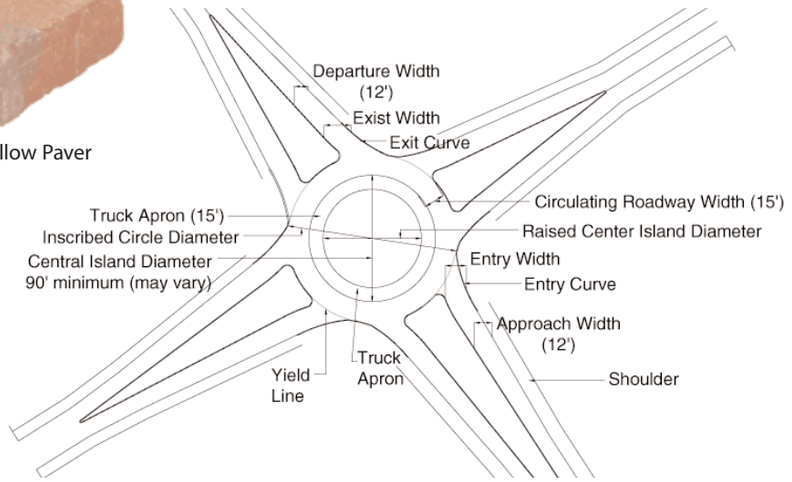
Geometric Design Elements
- Design speed of 50 mph on approaches
- 1 lane on approaches.
- single, 15 foot wide lane in roundabout.
- 90 foot diameter center island. (may vary)

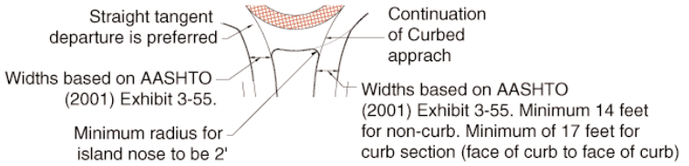
Landscaping Elements
- Use to emphasize location of roundabout.

Signage
- Locate directional signs at roundabout.
- Locate warning signs for splitter island on Route 50 as recommended in MUTCD.

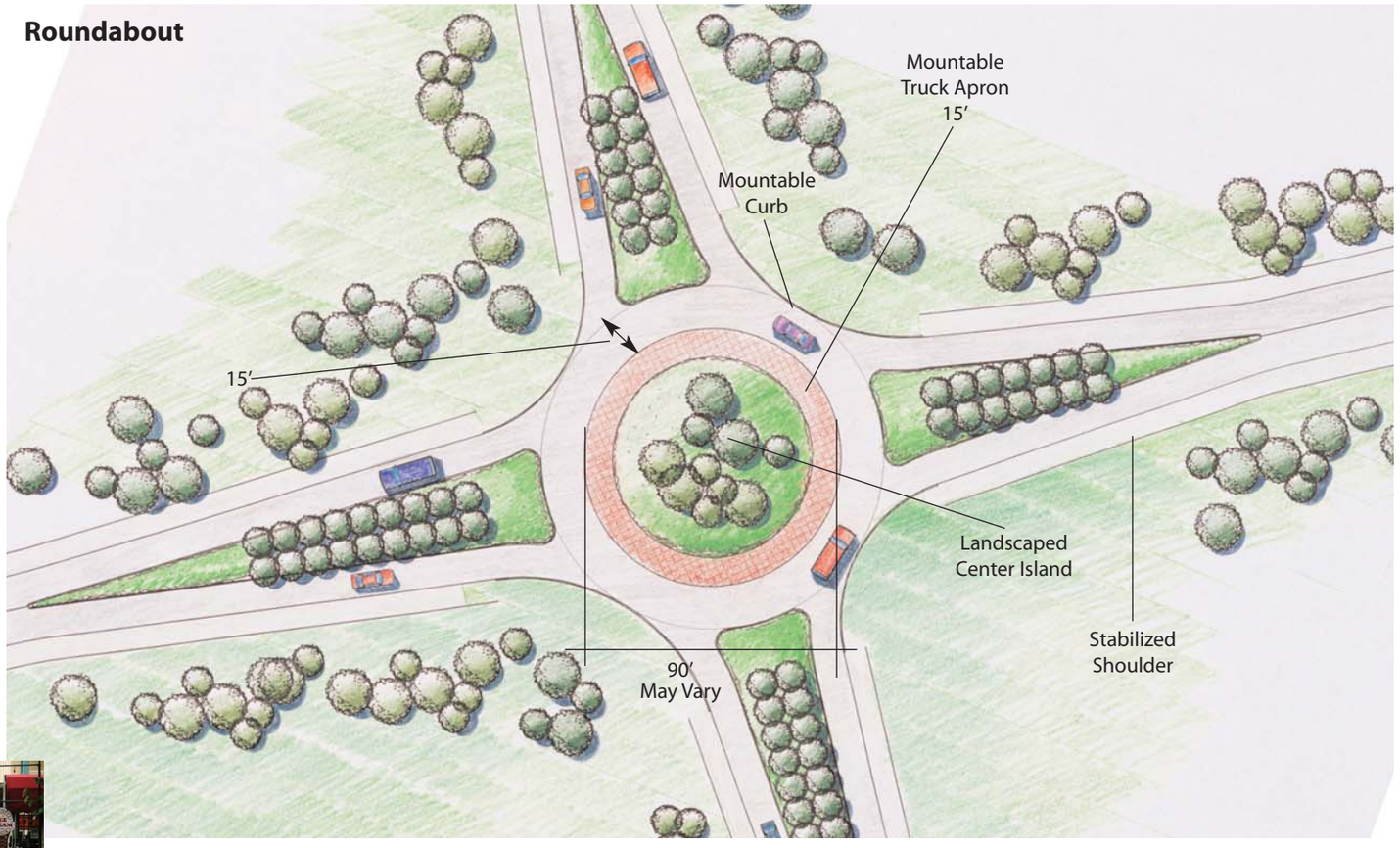
Material
- Mountable apron - heritage concrete pavers/ aged brick appearance.

Heritage Hollow Paver





Roundabout



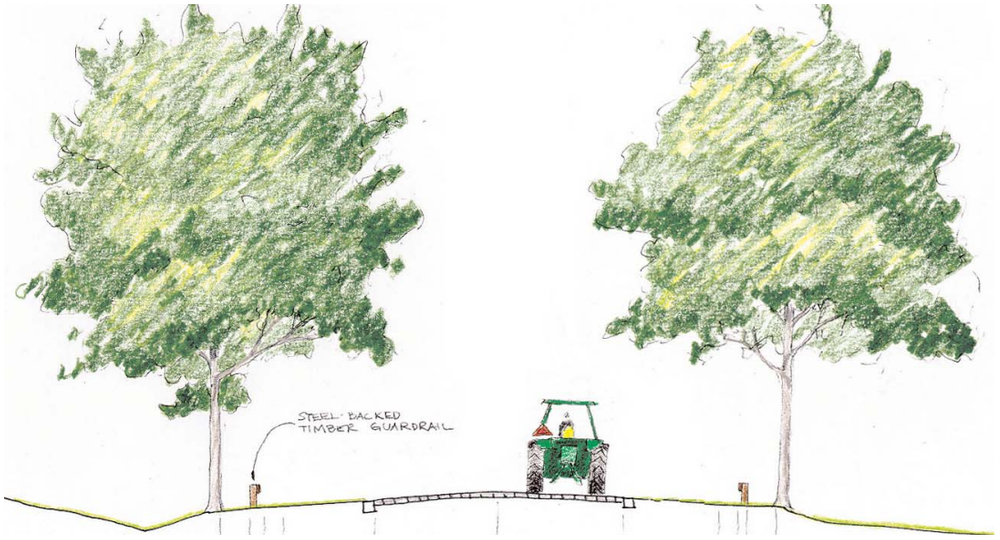
Stabilized Turf Shoulder

Replace gravel shoulders with stabilized turf shoulders. Stabilized turf shoulders reinforce the desired driving characteristics by visually narrowing the road and improve the aesthetics of the roadway. The shoulders will continue to serve as refuge area.

Location
- Along edge of travel lane in Rural and Transition Areas

Geometric Design Elements
- 8 feet wide shoulders.
- 12 feet wide travel lanes.

Material
- Aggregate/ topsoil blend.



Sketch of stabilized turf shoulder and steel-backed timber guardrails.

Scenic Pull-offs

Location
- At scenic vistas and rural historic sites

Geometric Design Elements
- 14 feet wide.
- 150 feet long.
- Support 3,000 psi.

Material
- Aggregate/ topsoil blend and terracell for stability.

Guardrails

Location
- Used to shield motorist from obstacles located in the clear zone, embankments, and steep slope.

Geometric Design Elements
- Pass the NCHRP 350 crash test requirements.

Material
- To be selected through further discussion with the community. Select from the following:
  - Steel-backed timber guardrails
  - Weathered steel guardrails
  - Three strand cable barrier system
  - Stone masonry walls with reinforced concrete core

Example of steel-backed timber guardrails.

Rural Traffic Calming Measures

The 24-mile corridor, from Paris to Lenah, is a region rich in history. Corridor Entrance Ways serve to announce entry into this special place, and alert travelers of the special qualities of the John Mosby Highway.

Corridor Entrance Ways

Location

- Approach to intersection of Route 50 and Route 17.
- Lenah Road to Watson Road.

Signage

- Welcome sign at entrance way.
- Locate warning signs along intersection roadways as recommended in MUTCD.

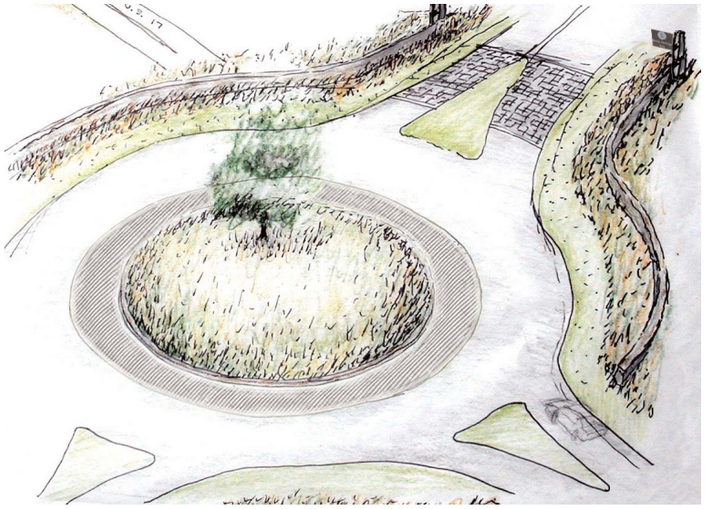
Landscaping Elements

- Use to highlight location.
- Will be compatible with the existing landscape.
- Will reflect historic landscaping features.

Geometric Design Elements

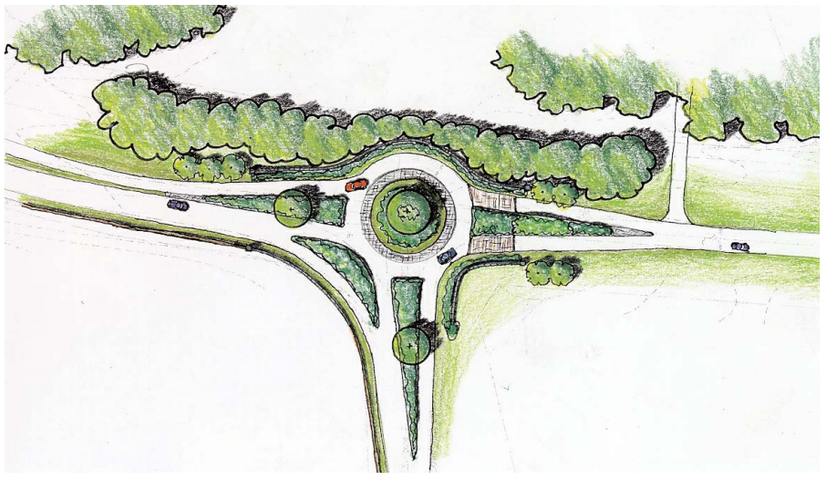
- 50 mph design speed on approaching.
- Stabilized shoulder.
- See **Rural Traffic Calming Measure** for details. (P. 35-38)

Proposed changes to signalized intersection at Route 17/50 (short-term corridor entrance way design)



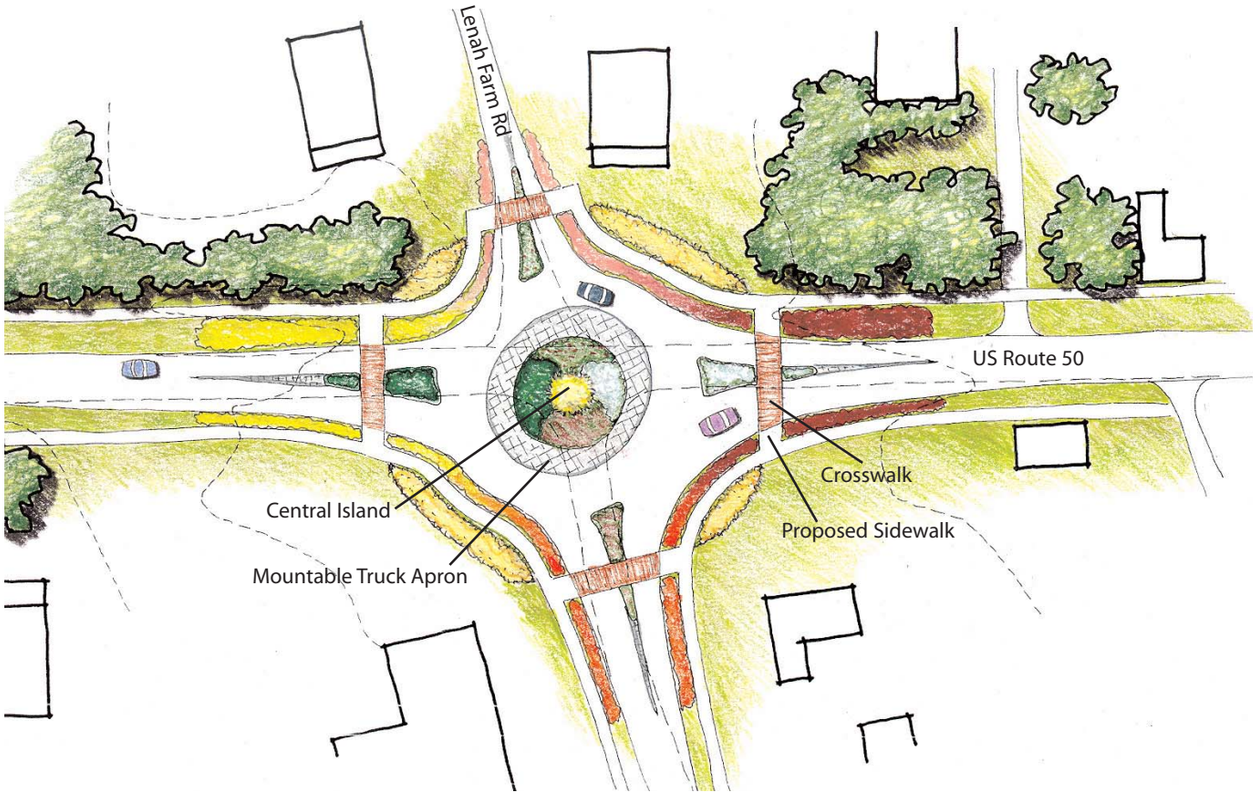
Plan view of proposed roundabout at Route 50/17 intersection (long-term corridor entrance way design)

Intersection of Route 50 and Route 17 *(concept sketches at right)*



Proposed roundabout at Route 17/50 (long-term)

Design concept for roundabout of Mt. Zion church.



Plan view of Route 50 and Lenah Farm Road intersection.

Transition Areas

Route 50 will transition from a rural roadway to a 'main street' through the towns. Transition areas are designed to alert travelers of the upcoming transition of the roadway character, encouraging drivers to gradually reduce travel speeds.

Design Requirements:

- Construct Entry Feature
- Preserve/ Enhance Views
- Introduce Safety Improvements that Maintain the Rolling Terrain
- Enhance Shoulder Treatment
- Provide a Transition to Curb
- Reflect Traditional Development Forms and Materials
- Self-enforce Posted Travel Speed
- Reinforce Driver Expectation
- Accommodate Agricultural/ Equestrian Transport/ Emergency Vehicles

Location

- Near entrance to Towns, area posted at 35 mph.

Approximately 1200 to 1500 feet long.

Signage

- Locate 35 mph sign at first textured pavement strip. Locate 25 mph sign 500 feet from entrance feature.

Landscaping Elements

- Provide a sense of enclosure.
- Trees should be spaced to establish increasing amounts of visual friction coming into town. Begin with mass grouping of trees with large spacing between groupings in rural sections and gradually transition to more formal tree planting approaching town.
- Use guardrails in rural areas to allow the placement of trees near the road, providing enclosure at paving warning strips.

Textured Pavement Strip

- 5 foot wide concrete paver strip with 1 foot concrete banding used to alert driver of decreased posted travel speed, locate from 35 mph sign away from the approaching town at the following spacing: 0 feet; 80 feet; 160 feet; 320 feet.

Rural Intersection Treatment

- Located at major intersections within transition area.
- Design speed 35 mph.
- 11 foot wide travel lanes.
- See **Rural Traffic Calming Measures** for details. (p. 35-38)

Transition Zones

Zone 1 (entering 35 mph zone; approximately 560')

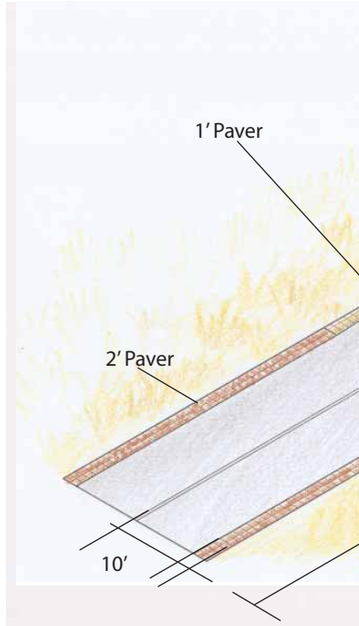
- 12 foot travel lanes.
- Textured pavement strip.
- Rural landscaping treatment.

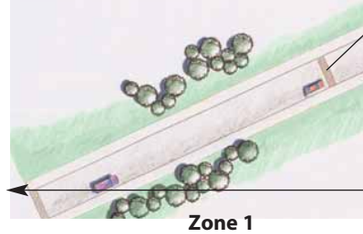
Zone 2 (approximately 500'; may vary)

- 11 foot travel lanes.
- 1 foot wide paver at edge of travel lane. Paver will consist of exposed aggregate with a relatively smooth finish.
- Rural landscaping treatment.

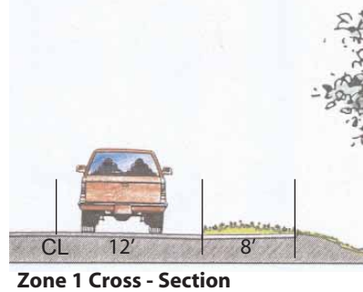
Zone 3 (approximately 500'; may vary)

- 10 foot travel lanes.
- 2 foot wide pavers.
- More structured landscaping - less spacing at edge of travel lane.

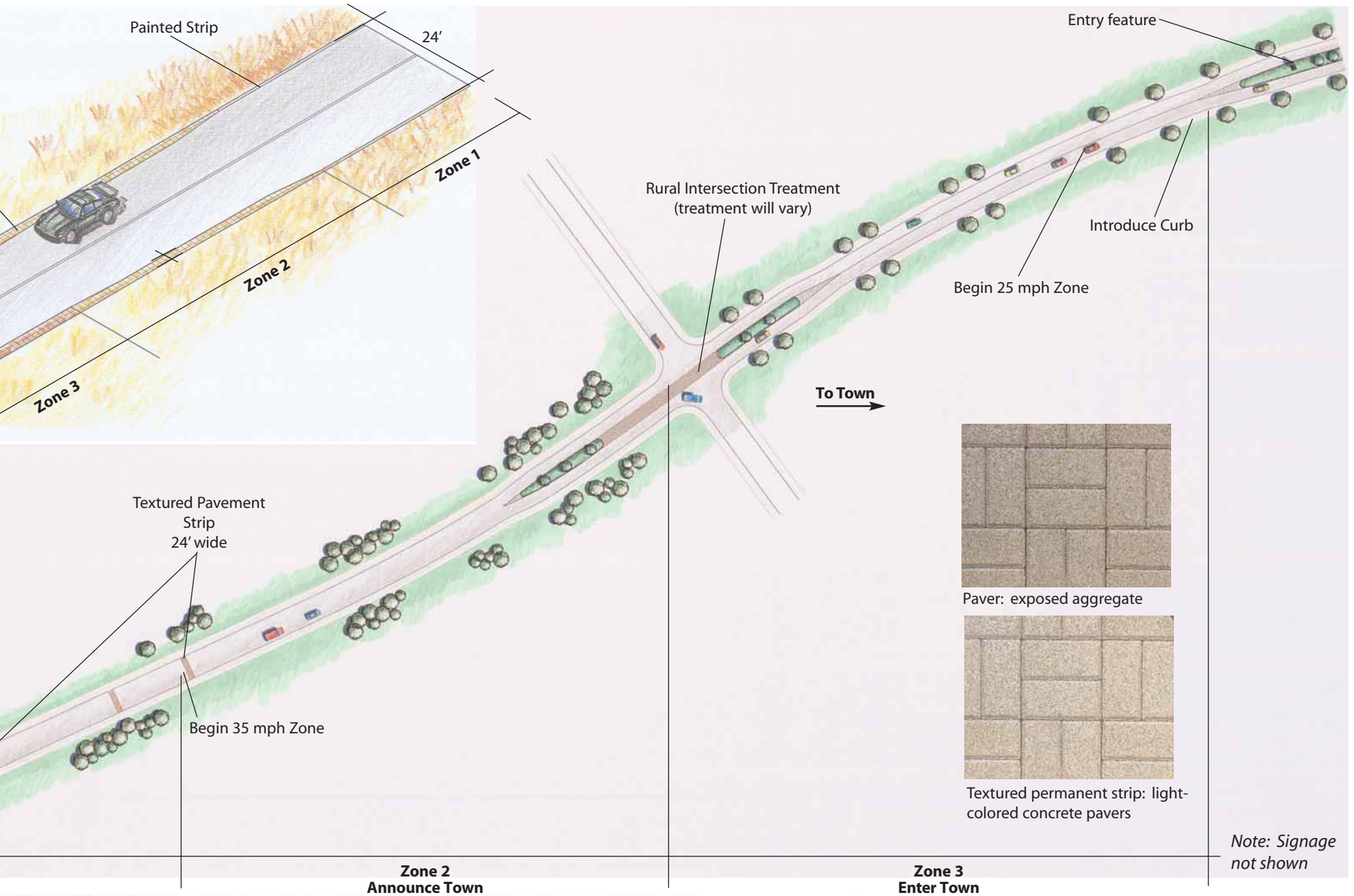


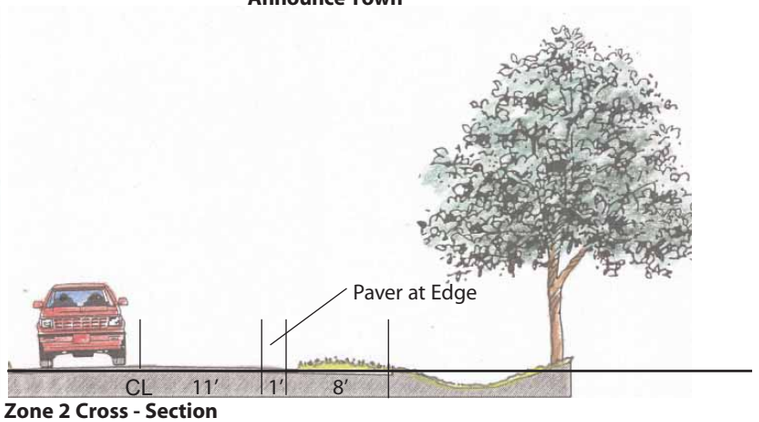


Zone 1
Reduce Travel Speeds

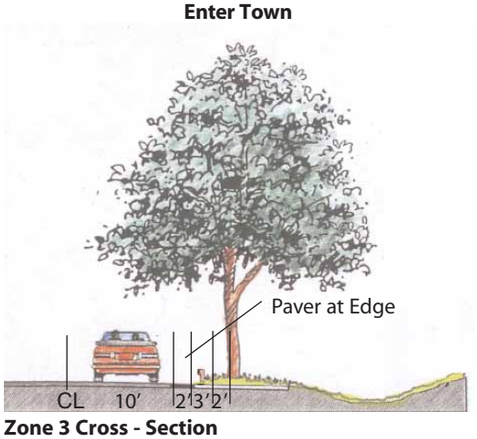


Zone 1 Cross - Section





Zone 2 Cross - Section



Zone 3 Cross - Section

Towns

The sections of Rural Route 50 serving Aldie, Middleburg, and Upperville realize a wider range of functions than the rural sections, and serve a wider range of uses. The unique design elements introduced in these areas are intended to provide high quality service to these multiple users while reinforcing the historic character of the communities. The measures are designed to support and comply with the following design requirements:

- Self-enforce Posted Travel Speeds
- Relate Scale of Entry Feature to the Community
- Use Traditional Landscaping Elements
- Provide a Continuous Sidewalks in Commercial Areas
- Locate Pedestrian Crossings in Proximity to Community Facilities
- Locate Curb and Gutter in Commercial Areas
- Provide Sidewalks Adjacent to Community Facilities
- Maintain Views to Public and Historic Buildings
- Announce the Arrival to a Place
- Reflect Traditional Development Forms and Materials
- Highlight Public Building and Public Spaces
- Accommodate Agricultural/ Equestrian Transport/Emergency Vehicles
- Buffer Pedestrians from Motor Vehicles
- Enhance the Local Architecture in the Design
- Use Traditional Building Materials
- Community Input

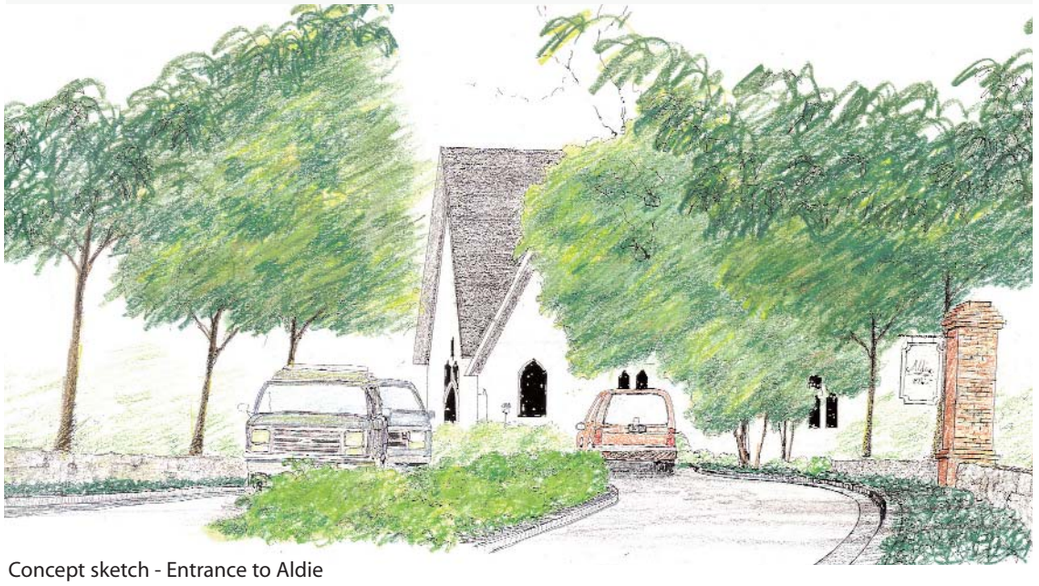
Entrance Way Features

Location
- At entrances to towns.

Geometric Design Elements
- Design speed 25 mph.
- Introduce curb.
- Use median splitter where space permits.
- Dimensions will vary.

Landscaping Elements
- Minimal landscaping.
- Use vertical monument/pier with similar properties to farm gates as support for each entry sign.
- Use paving stones to reinforce the nature of the entry as an "outdoor room".

Signage
- Use decorative sign identifying town.



Concept sketch - Entrance to Aldie

Concept sketch - Entrance to Upperville

Streetscape

Location

- In commercial areas of Aldie, Middleburg, and Upperville.
- Adjacent to public or community facilities.

Materials

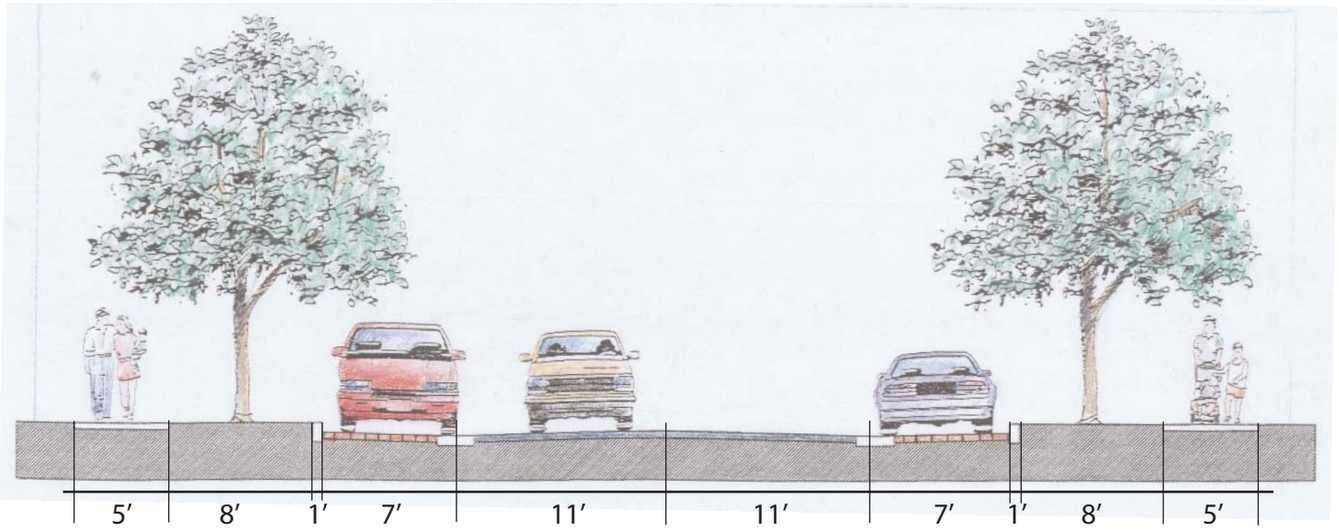
- Curbing: medium textured exposed aggregate
- Valley Gutter: exposed aggregate with course texture finish
- On-street Parking: Heritage Concrete Pavers. Use running bond pattern (perpendicular to roadway)
- Sidewalk: will vary. Match existing material, color, and pattern in Middleburg.

Signage

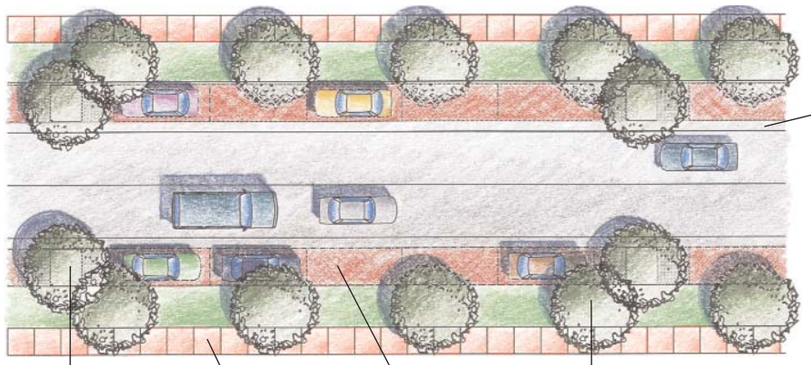
- Regulatory and informational conforming to design vocabulary for each community.

Geometric Design Elements

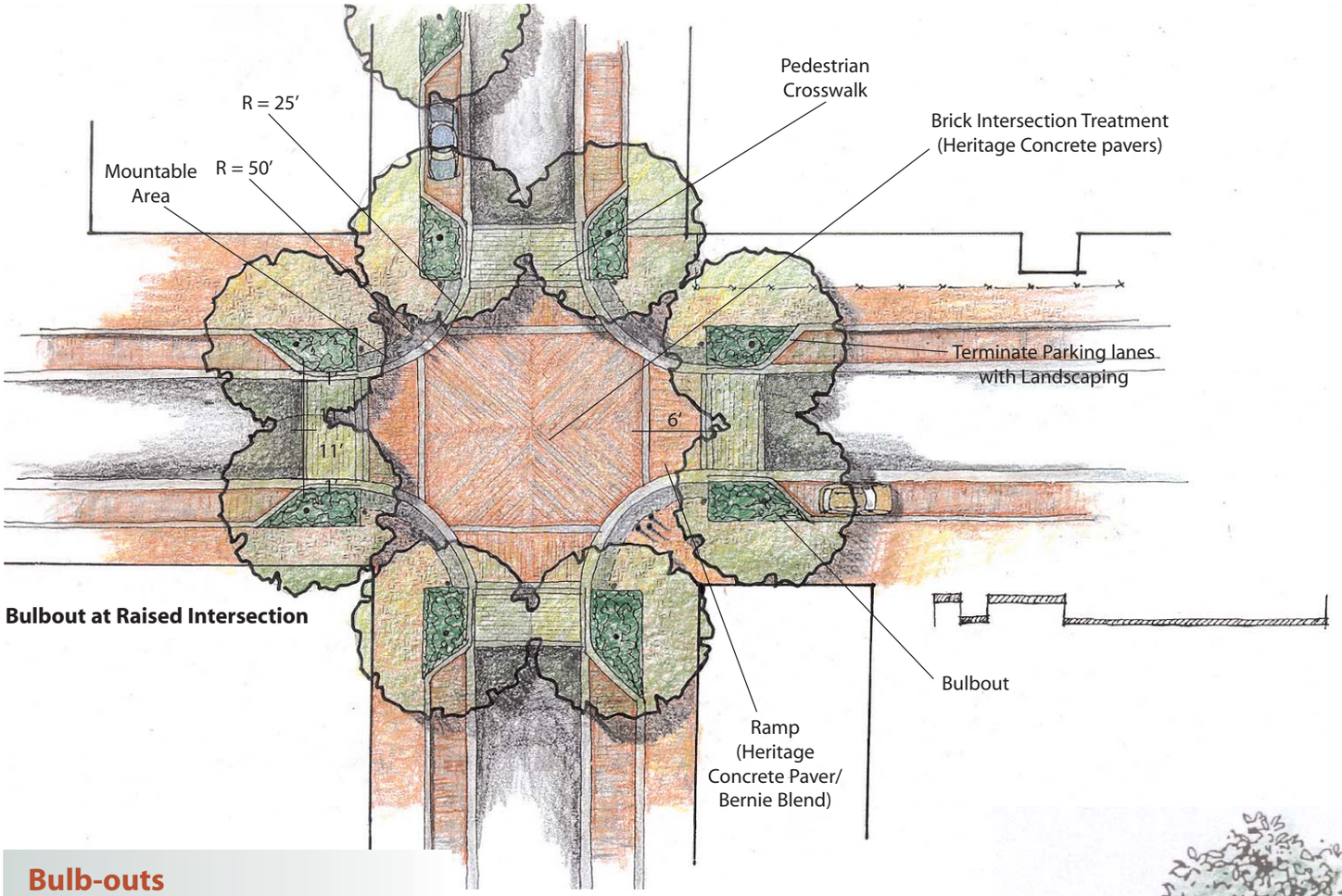
- 25 mph design speed.
- Curb and gutter in commercial areas
- 5' sidewalk (where ROW permits).
- Landscaping and other vertical elements, minimum of 1.5 feet from face of curb.
- 11 foot wide travel lanes (includes one foot of valley gutter).



Typical Section



Parking - (Bernie Blend Paver)



Bulbout at Raised Intersection

Bulb-outs

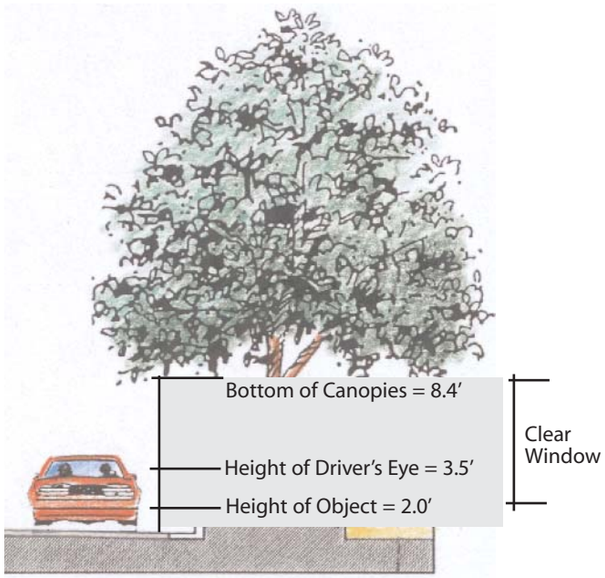
Location
- Intersections in Aldie, Middleburg and Upperville.

Signage
- Pedestrian crossing sign

Landscaping Elements
- Use to highlight location
- Will be compatible with the existing landscaping and proposed streetscaping.

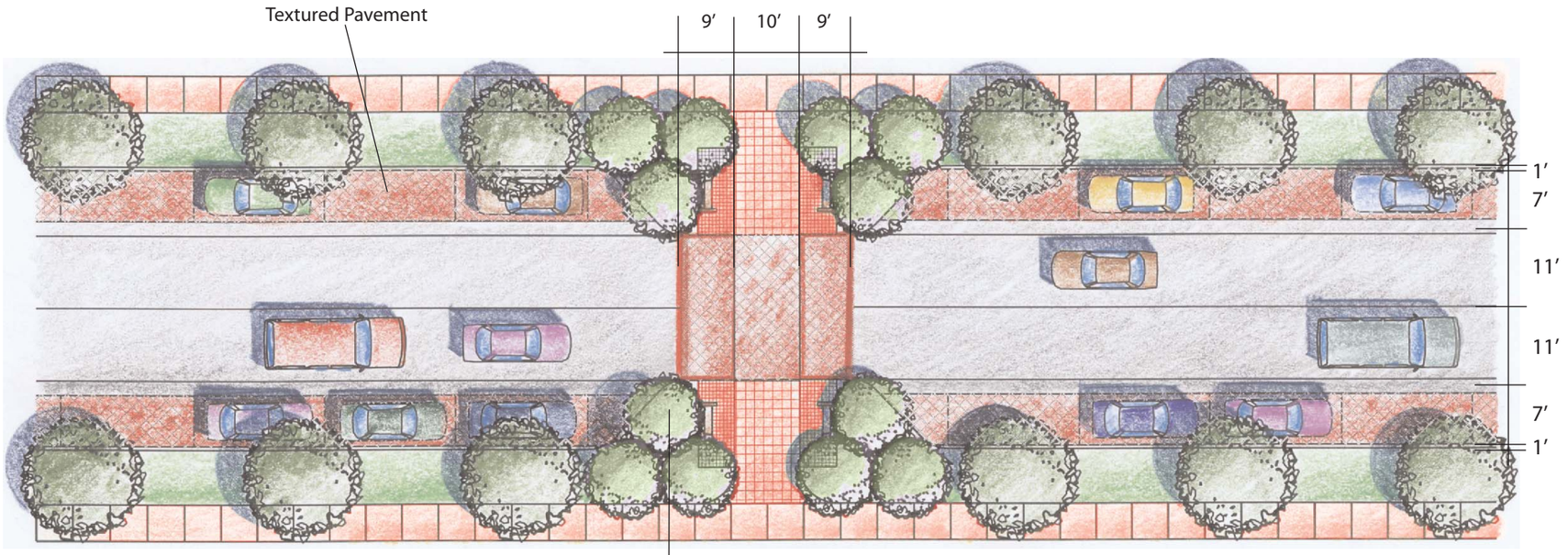
Geometric Design Elements
- Design speed 25 mph
- 25' Curb Return Radius (may vary).

Materials
- Raised Table: Heritage Concrete Pavers
- Crosswalks: Similar material (color and pattern) to sidewalk. 12" tinted concrete bands with smooth finish will edge the crosswalk pavers.
- Detectable concrete warning pavers at edge of vehicle driving lane. Use darker color than sidewalk.



Clear window for landscaping or other obstructions within the sight triangle at in-town intersections.

Reference: FDOT Roadway Design Manual



Plan View of Speed Table

Speed Table/Mid-Block Pedestrian Crosswalk

Location

- Mid-block, Aldie, Middleburg, and Upperville.
- Adjacent to public or community facilities.

Signage

- Locate warning sign along Route 50 as recommended in MUTCD.
- Pedestrian crossing sign.

Landscaping Elements

- Use to highlight location.
- Will be compatible with the existing/ proposed landscaping.

Geometric Design Elements

- 25 mph design speed.
- Height flush with sidewalk (4”-6”).
- Vertical deflection, minimum of 1:8 and maximum of 1:18.
- 11 foot wide travel lanes.
- Linear incline on ramps.

In-Town Splitter Island

Location

- Long, straight road sections.
- Near entrances to towns.

Signage

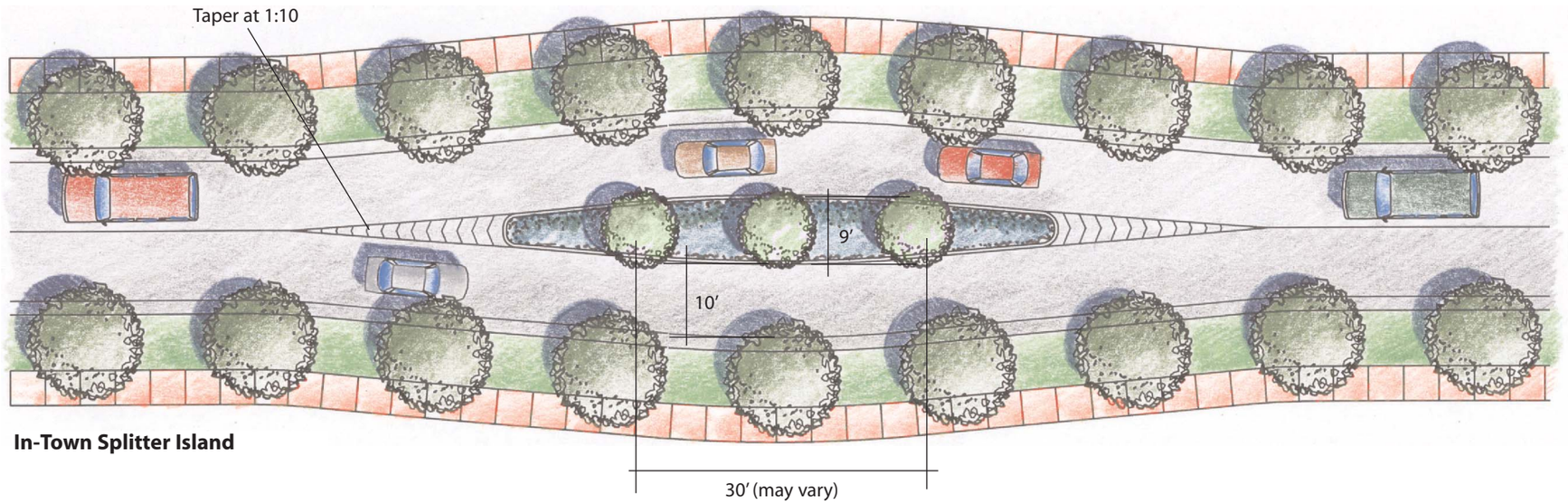
- Locate warning signs for splitter island on Route 50 as recommended in MUTCD.
- Locate warning sign on either end of splitter island.

Landscaping Elements

- Use to highlight the location of the splitter island.
- Will be compatible with existing landscaping and proposed streetscaping.

Geometric Design Elements

- Design speed 25 mph.
- 9' wide raised median.
- Non-mountable curb on median.
- 10' wide travel lanes.
- Taper 1:10.



In-Town Splitter Island

Concept sketch - Realignment of Route 50 in Aldie, looking east

Horizontal Deflections

Location

- Long, straight road sections in towns where setbacks provide sufficient space.

Signage

- None.

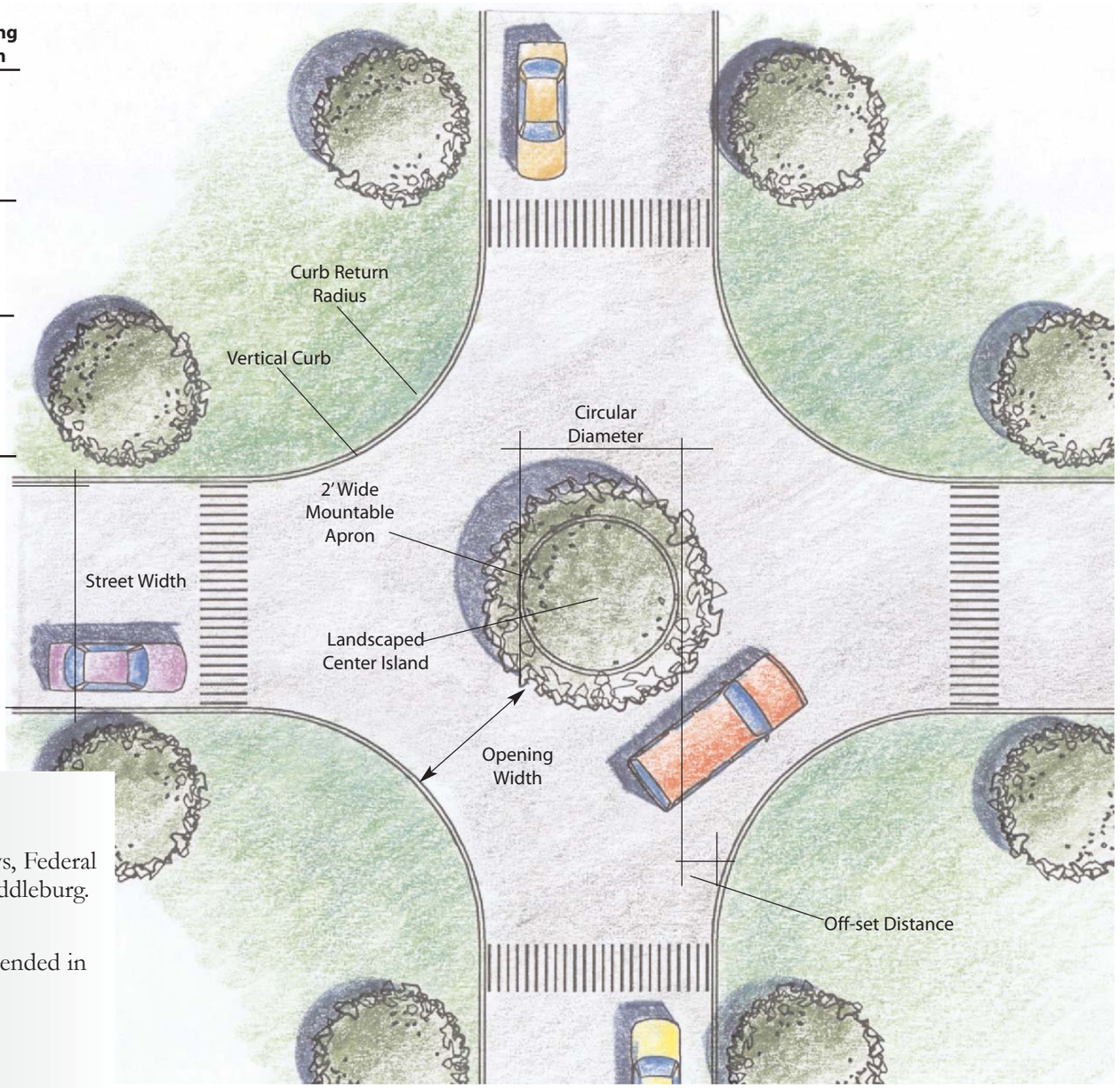
Landscaping Elements

- None beyond the proposed streetscaping improvements.

Geometric Design Elements

- Design speed 25 mph.
- 11 foot wide travel lanes.

Street Width	Curb Return Radius	Off-Set Distance	Circle Diameter	Opening Width
20′	<15′	Reconstruct Curbs		
	15′	5.5′	9′	16′
	18′	5.0′	10′	17′
	20′	4.5′	11′	18′
	25′	4.0′	12′	19′
24′	<12′			
	12′	5.5′	13′	16′
	15′	5.0′	14′	17′
	20	4.5′	15′	18′
	25′	3.5′	17′	20′
25′	<12′			
	12′	5.5′	14′	16′
	15′	5.0′	15′	17′
	18	4.5′	16′	18′
	20	4.5′	16′	18′
	25′	3.5′	18′	20′
30′	10′	5.5′	19′	16′
	12′	5.0′	20′	17′
	15′	5.0′	20′	17′
	18′	4.5′	21′	18′
	20′	4.0′	22′	19′
	25′	3.0′	24′	20′



Mini Traffic Circle

Mini Traffic Circles

Location

- Intersections on parallel roadways, Federal Street and Marshall Street, in Middleburg.

Signage

- Locate warnings sign as recommended in MUTCD.

Landscaping Elements

- Use to highlight location.

Geometric Design Elements

- Design speed 25 mph.
- Design vehicle WB-40
- Size of elements - see table or size using turning templates.
- 2’ wide apron.
- Vertical curb on outside corners.

Note: Warning signs not shown

Note: Curb return radius and street width will determine the off-set distance, circle diameter, and opening width. The Mini Traffic Circle should be sized to accommodate the swept path of a WB - 40 vehicle.

Specific Corridor Enhancements

There are two areas in the study that require comprehensive modifications to the roadway. These areas are defined as follows:

- Gilbert's Corner, and the associated traffic congestion.
- The 1.3 mile four-lane segment of Route 50 located west of Middleburg.

The Study Team outlined a detailed enhancement plan for each of these areas that address safety, access, and aesthetic concerns.

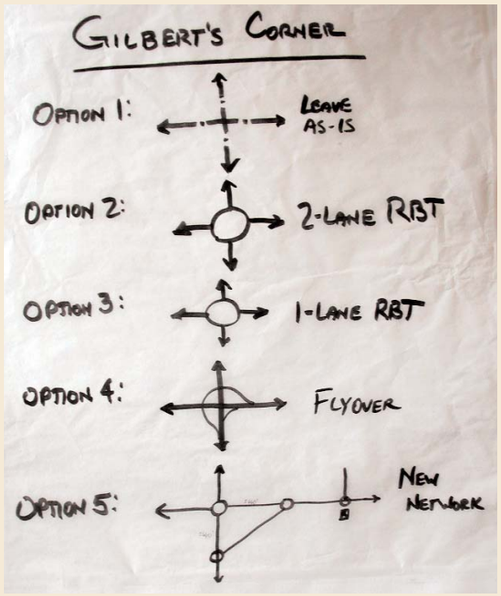
Gilbert's Corner (intersection of US 50 and US 15)

4-lane section of Route 50 west of Middleburg

Gilbert's Corner - Intersection of Route 50 and Route 15

The intersection of Route 50 and Route 15, commonly known as Gilbert's Corner, is currently functioning at LOS F. The design team evaluated alternative enhancements based on:

- Compatibility with the community Vision
- Support of the Design Requirements
- Reduction in delays



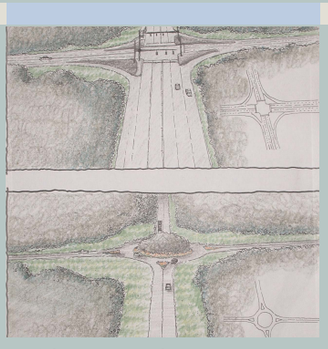
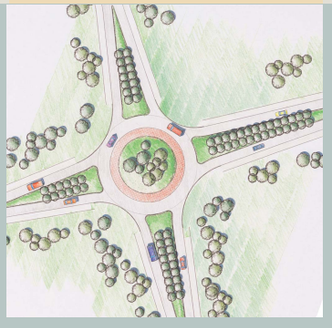
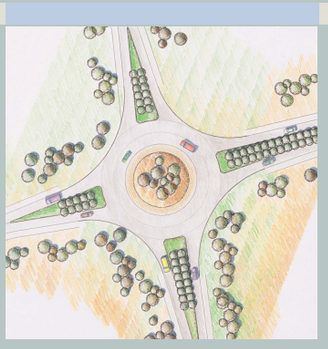
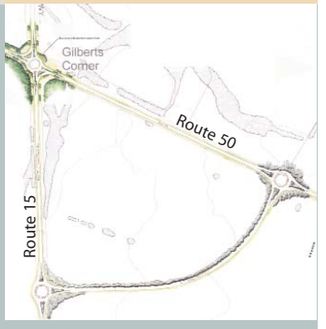
Alternatives evaluated during design charrette

Design Requirements Supported

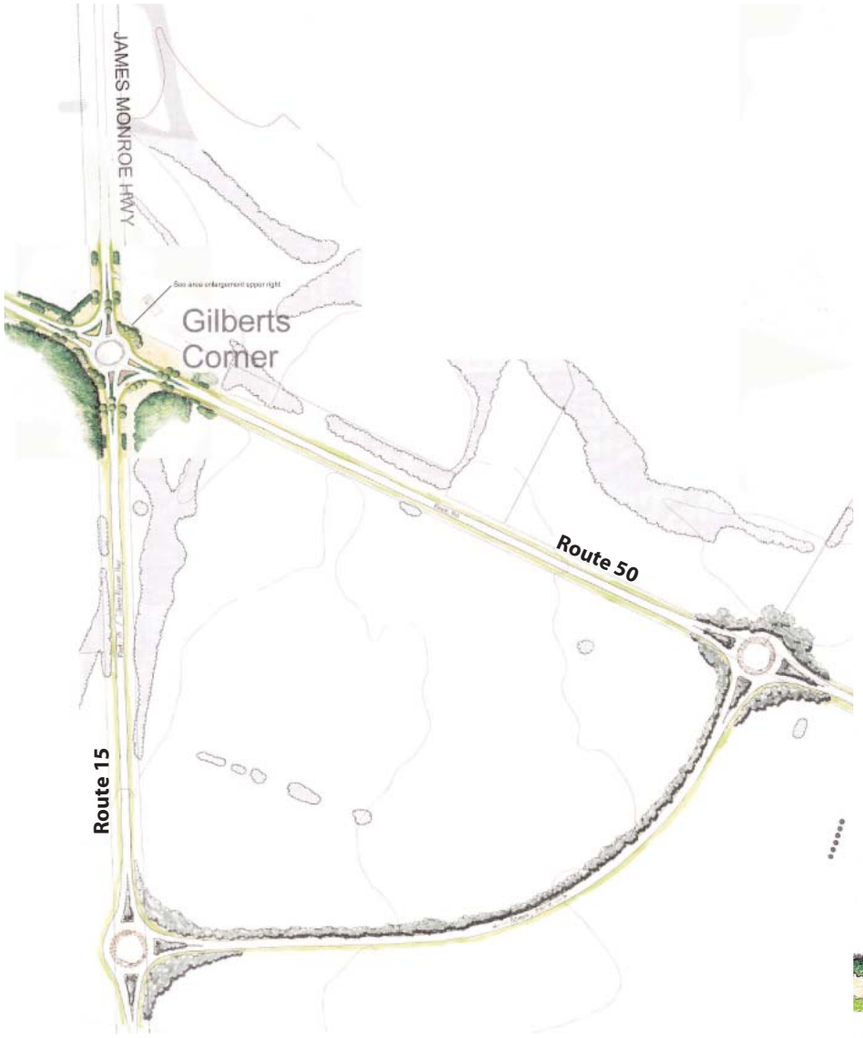
- Announce Arrival to a Place
- Preserve/ Enhance Views
- Maintain the Rolling Terrain
- Reflect Traditional Development Forms and Materials
- Use Natural/Traditional Landscaping Materials and Techniques
- Self-enforce Posted Travel Speed
- Increase Safety
- Accommodate Agricultural/Equestrian Transport/Emergency Vehicles

Average Delay

Concept Sketch

Remain As-Is	Widen to Two Lane Approaches with Turn Lanes	One Lane Roundabout	Two Lane Roundabout	Triad Roundabout Concept
		●	●	●
●		●	●	●
●		●	●	●
		●	●	●
		●	●	●
		●	●	●
		●	●	●
●	●	●	●	●
Existing Traffic Volumes AM Peak LOS: F Avg Delay: 144.6 (sec/vehicle) EB queue: 159 vehicles PM Peak LOS: C Avg Delay: 34.0 (sec/vehicle) WB Left queue: 42 vehicles	Future Traffic Volumes (20% increase in traffic volumes) AM/PM LOS: C EB queue: 30 vehicles WB Left queue: 11 vehicles Require an additional eastbound lane and two northbound right turn lanes.	Future Traffic Volumes (20% increase in traffic volumes) AM/PM LOS: D EB queue: 69 vehicles	Future Traffic Volumes (20% increase in traffic volumes) AM Peak LOS: B Average Delay: 3.6 sec/vehicle WB queue: 6 vehicles PM Peak LOS: B WB Left queue: 11 vehicles	Future Traffic Volumes (20% increase in traffic volumes) All Roundabouts PM Peak LOS: C or better Average Delay: 9.3 sec/vehicle WB queue: 2.4 vehicles NB Left queue: 19 vehicles
				
Remain as is	Widen to two lanes	One-lane roundabout	Two-lane roundabout	Triad

Selected Alternative: Triad Roundabout Concept



New intersection along Route 15.

View of Route 50 at the Route 15 intersection

Plan view of Route 15 intersection

The selected alternative reduces delay at Gilbert's Corner by distributing the high volume turning movements to two locations. This design supports all of the required design principles, reduces delays, and establishes a visual gateway to the corridor.

4 Lane Section

Rural Route 50 widens to four-lanes west of Middleburg. Stakeholders identified the 1.4 mile long four-lane section as a safety concern, where drivers increase speeds in an attempt to pass other drivers before re-entering the two-lane road section. The high speed section is located immediately adjacent to the Middleburg west transition area. The slope, straight alignment and wide cross-section entice drivers to speed up as they approach town, working in opposition to the intent of the transition area and the entrance way feature.

The recommended design restores this section of Route 50 to a two-lane roadway. A portion of the existing eastbound lanes are redesigned to serve as a local access road. The existing westbound lane are realigned to provide eastbound and westbound travel. The meandering alignment is design to self-enforce the 45 mph posted speed in this area.

Design Principles

- Self-enforce Posted Travel Speed
- Increase Safety of Vehicular Travel
- Provide Access to Historic Sites
- Preserve/ Enhance Views
- Maintain the Rolling Terrain
- Improve Shoulder Treatment
- Use Natural/ Traditional Landscaping Materials and Techniques
- Accommodate Agricultural/ Equestrian Transport/ Emergency Vehicles

4 lane section, looking east towards Middleburg

Signage

- Signs associated with Prelude to Gettysburg/Mount Defiance Battlefield Site.

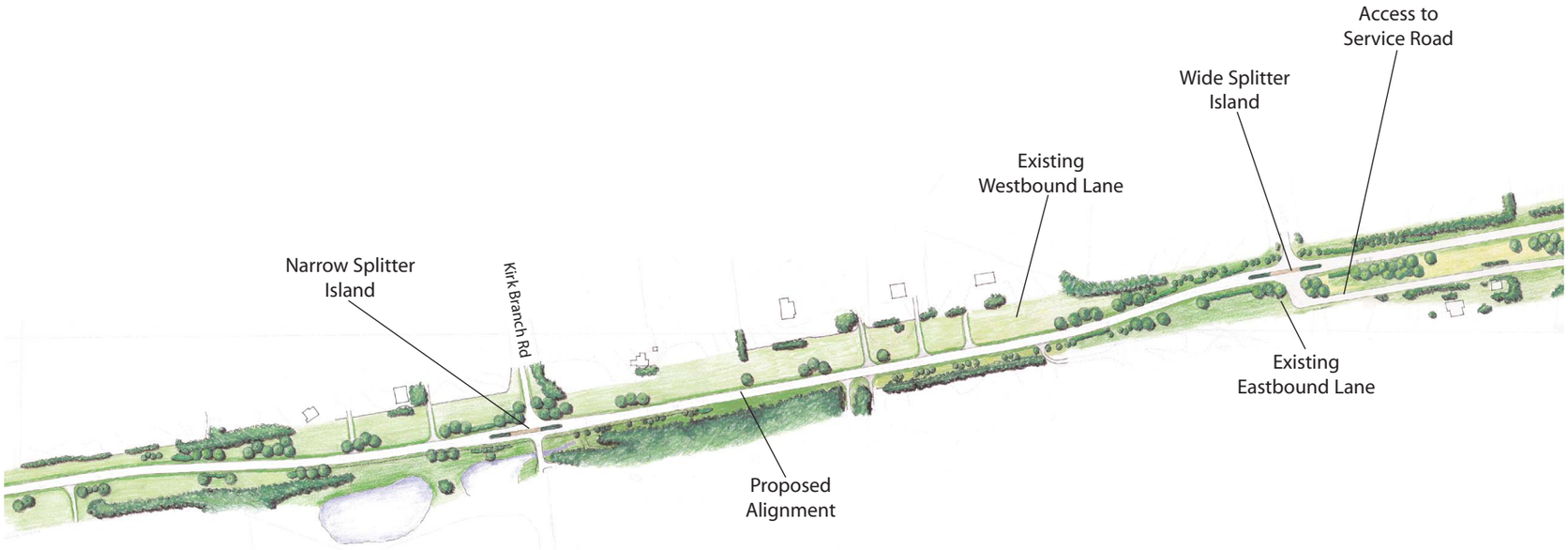
Landscaping Elements

- Will be compatible with the existing landscape.
- Will reflect historic landscaping features.

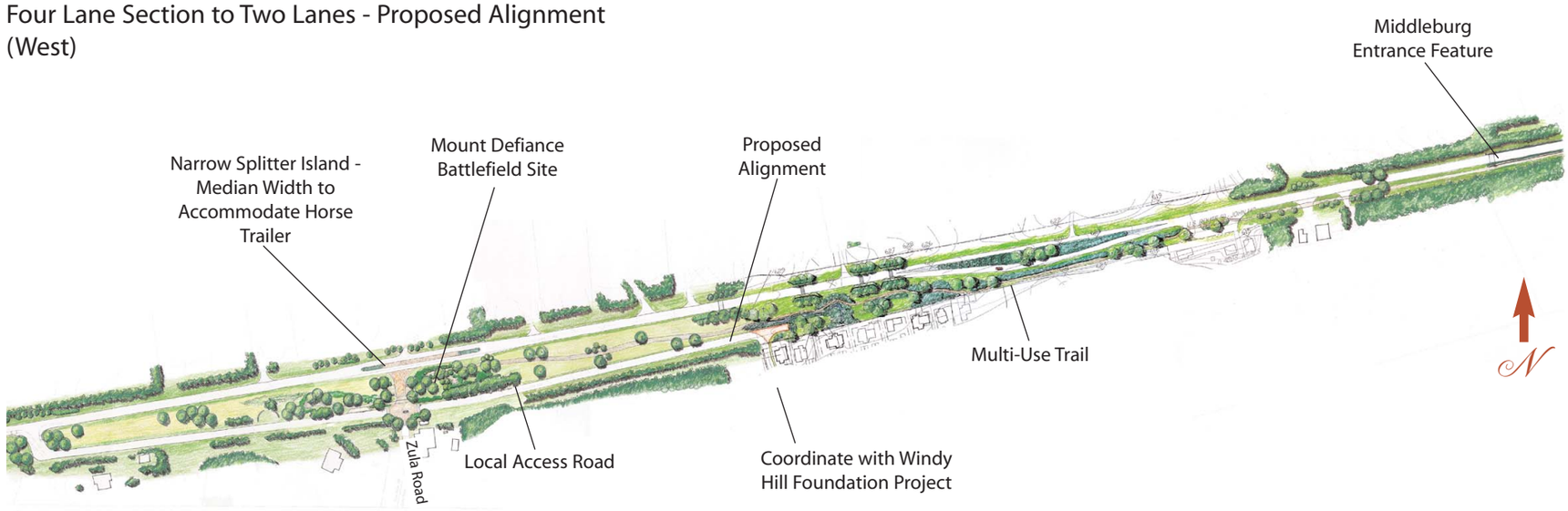
Geometric Design Elements

- 50 mph design speed.
- 2 lanes.
- 12 foot wide travel lanes.
- Maintain access to adjacent uses.

Concept Sketches



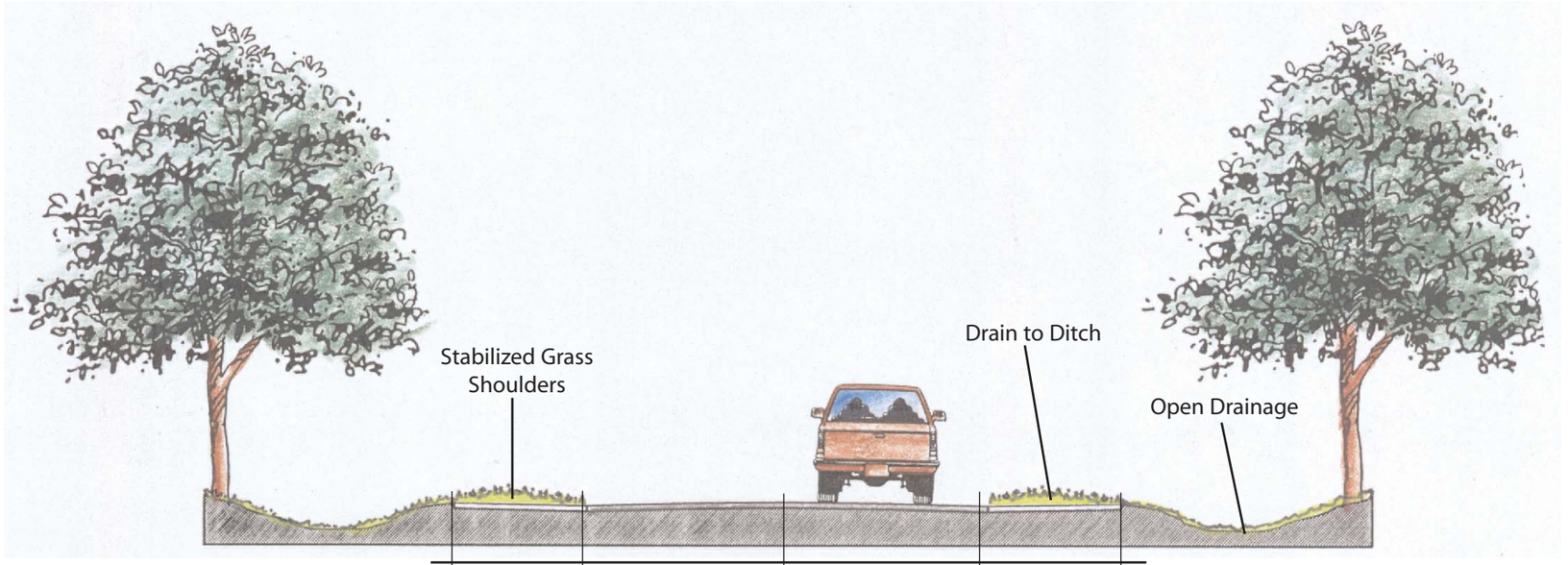
Four Lane Section to Two Lanes - Proposed Alignment (West)



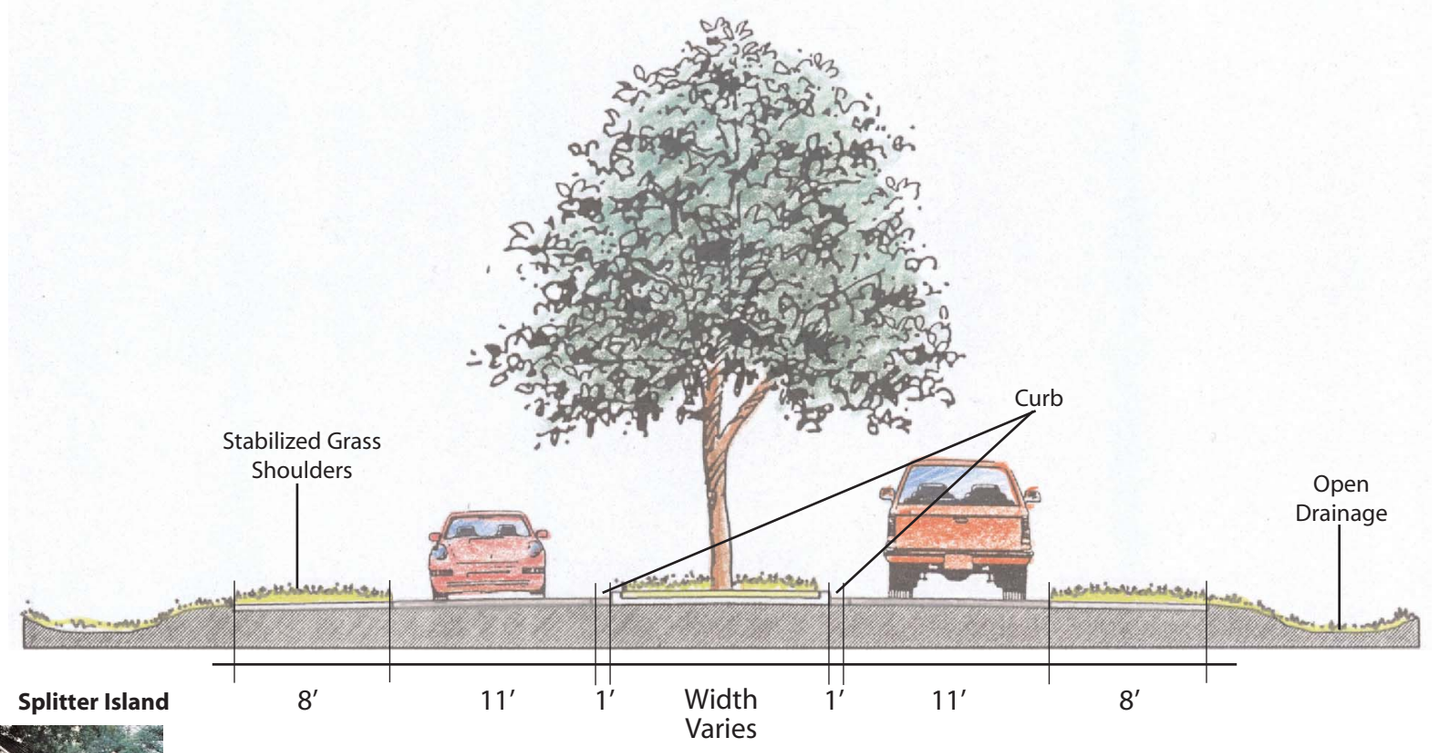
Four Lane Section to Two Lanes - Proposed Alignment (East)

The Concept Plan

RURAL CROSS SECTIONS

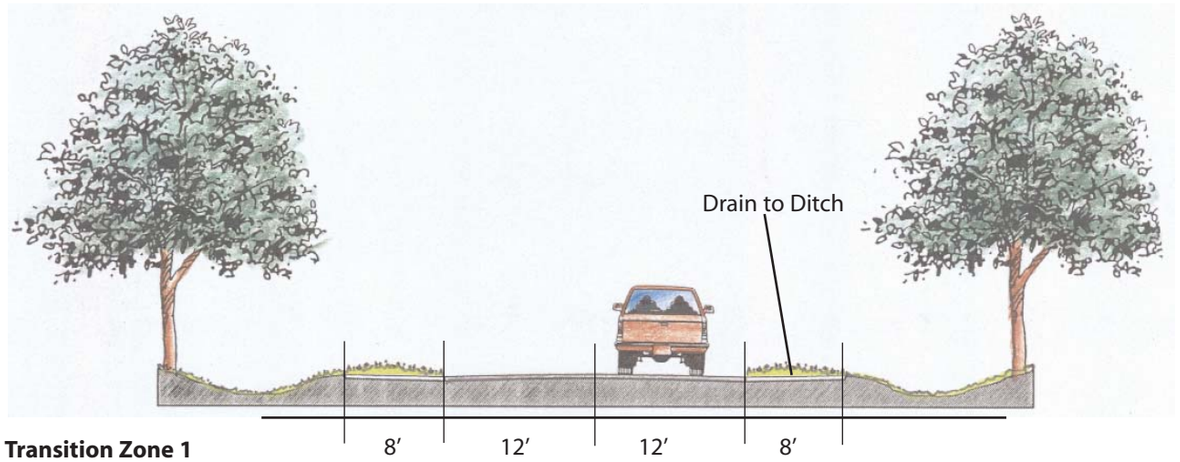


Typical Cross Section

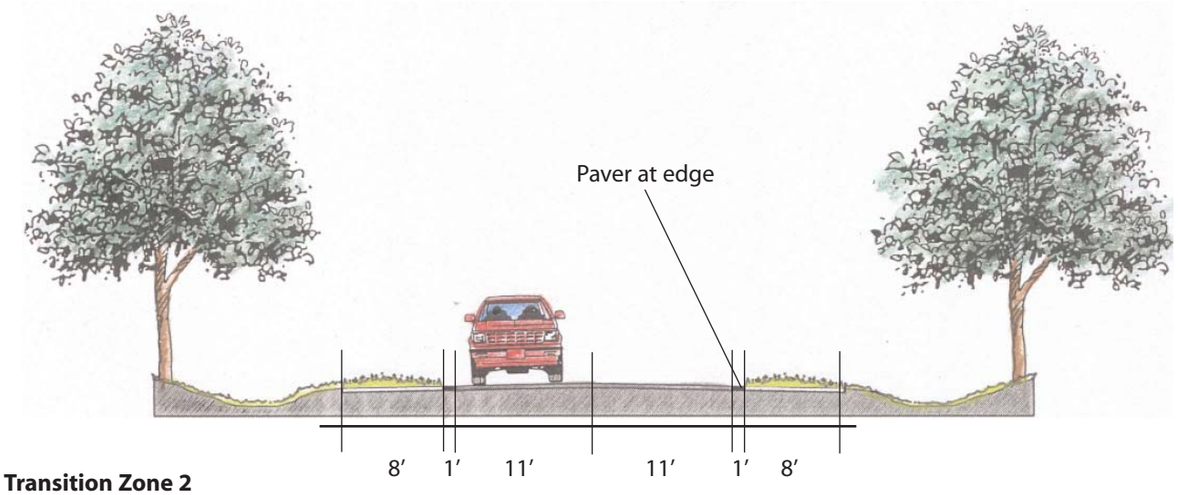


Splitter Island

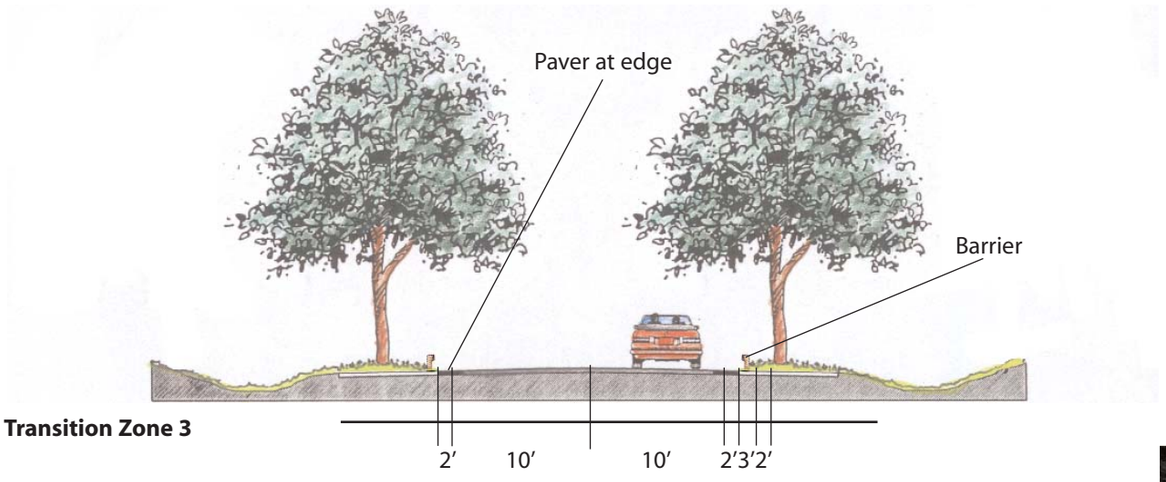
TRANSITION AREAS CROSS SECTIONS



Transition Zone 1



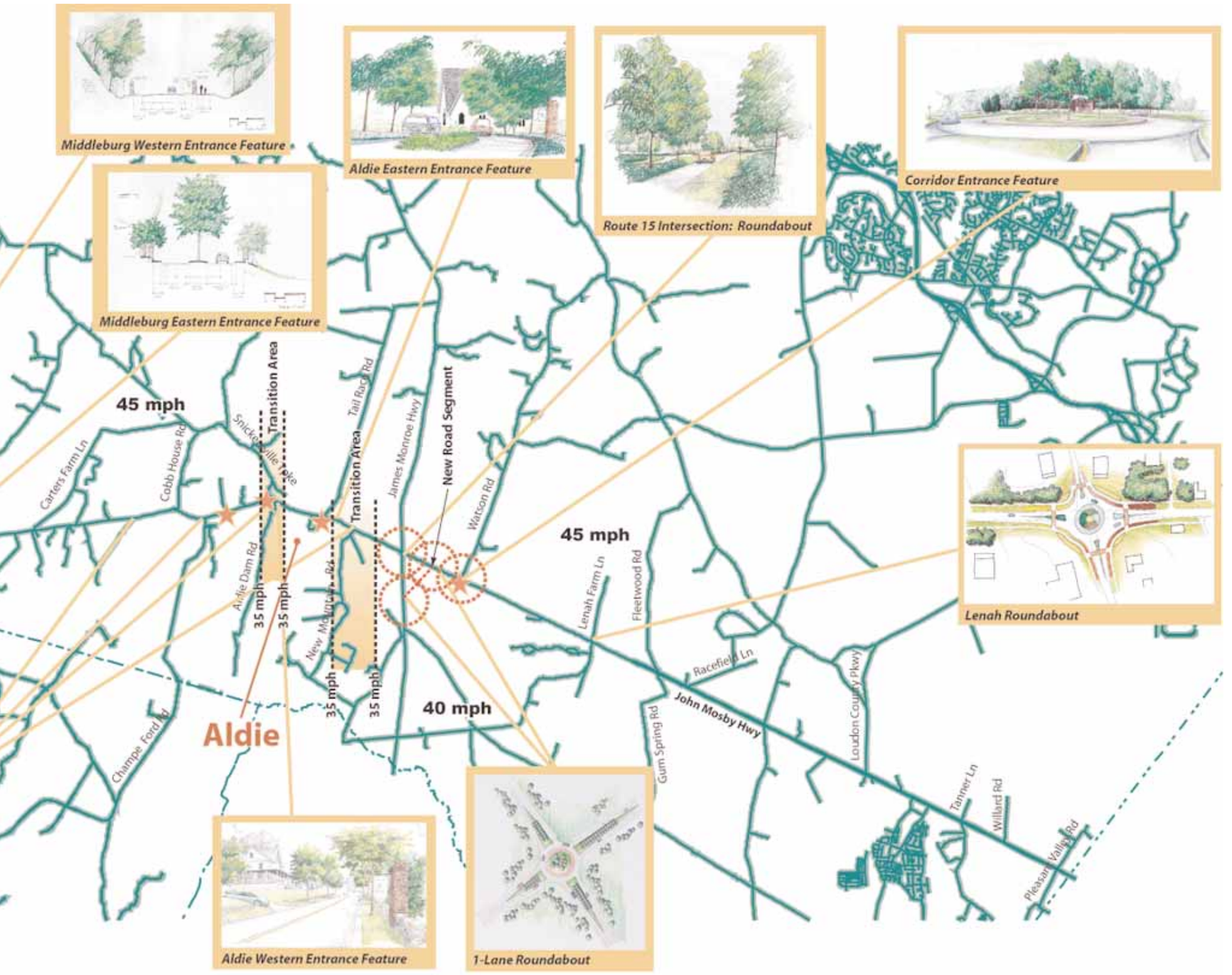
Transition Zone 2



Transition Zone 3

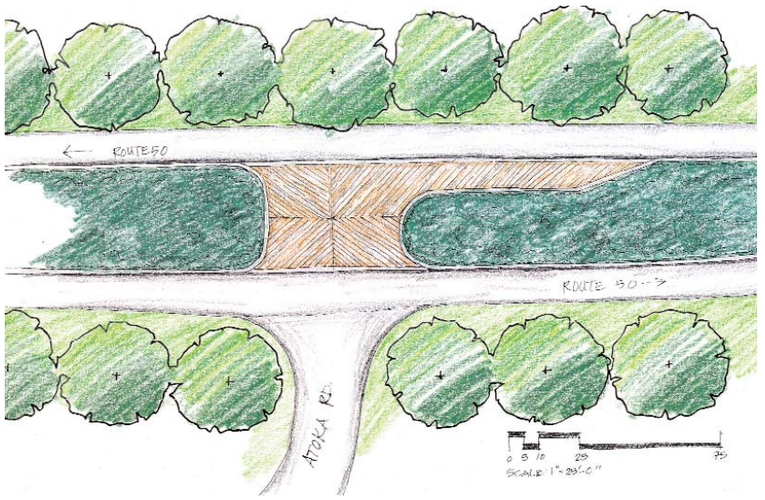
TRAFFIC CALMING MEASURES

Prelude to Gettysburg Battlefield Sites


Middleburg Western Entrance Feature
Aldie Eastern Entrance Feature
Route 15 Intersection: Roundabout
Corridor Entrance Feature
Middleburg Eastern Entrance Feature
45 mph
Transition Area
Transition Area
New Road Segment
Tail Race Rd
James Monroe Hwy
Watson Rd
Carters Farm Ln
Cobb House Rd
Aldie Dam Rd
35 mph
35 mph
35 mph
35 mph
45 mph
Lenah Farm Ln
Fleetwood Rd
Racefield Ln
John Mosby Hwy
Loudon County Pkwy
Gum Spring Rd
Champe Ford Rd
Aldie
40 mph
Tanner Ln
Willard Rd
Pleasant Valley Rd
Lenah Roundabout
Aldie Western Entrance Feature
1-Lane Roundabout

Design Sketches

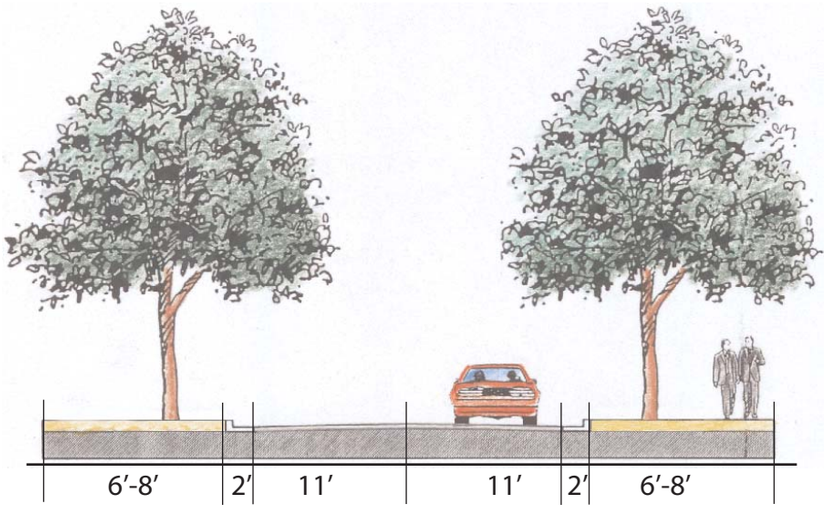
Perspective sketch of transition area



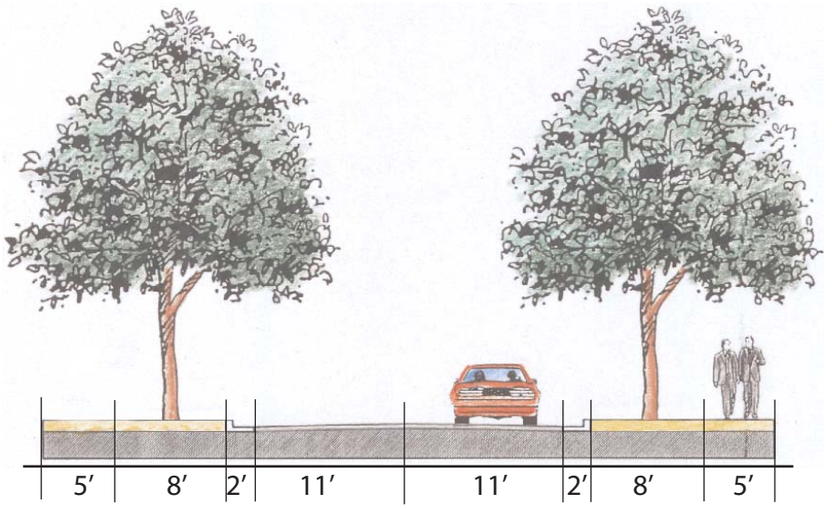
Detail sketch of pavers at a typical rural splitter island.

Roundabout at Watson Road and Mt. Zion Church

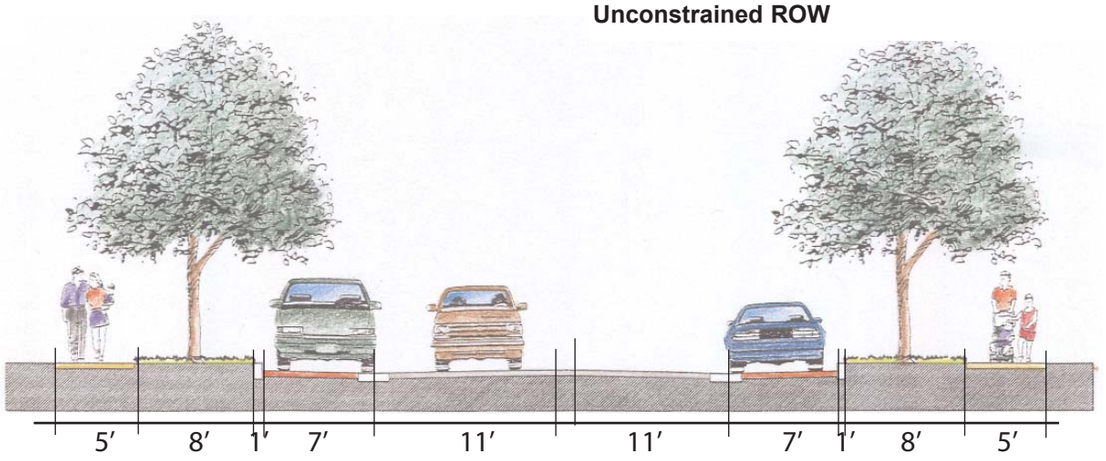
TYPICAL SECTIONS



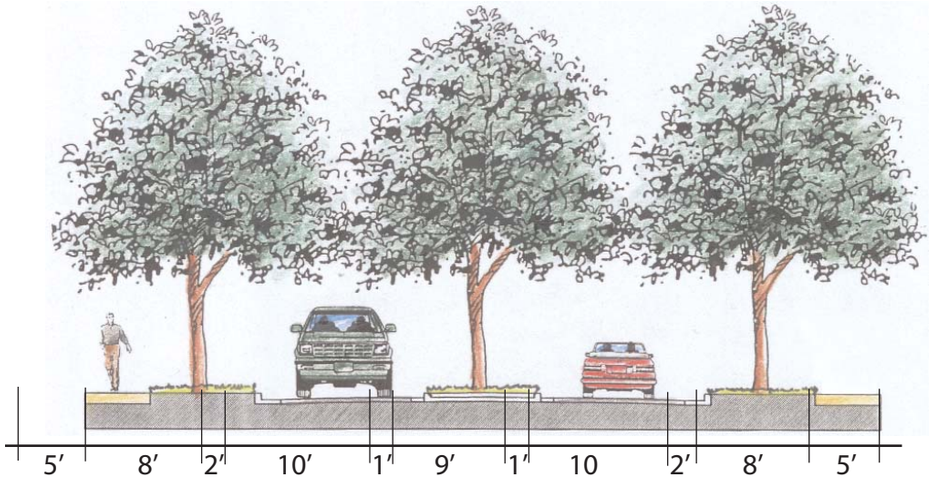
Typical Cross Section - Constrained ROW



Typical Cross Section - Unconstrained ROW



Typical Cross Section - With Parking

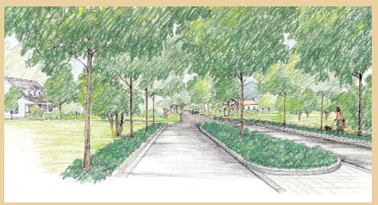


Splitter Island

The Concept Plan - Upperville

Traffic Calming Measures

Upperville West Entrance Feature



Splitter Island

Upperville East Entrance Feature

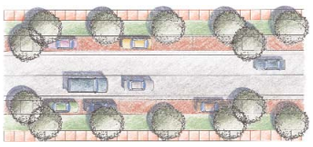
Prelude to Gettysburg Battlefield Site

View of Route 50 through Upperville

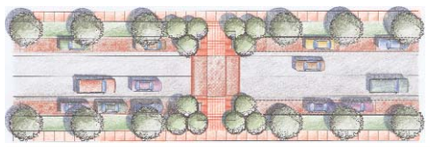
Pedestrian Crossing

Transition Area

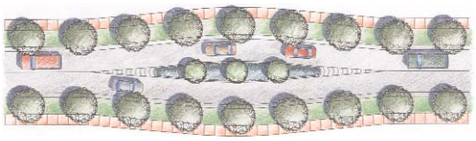
Transition Area | Landscaping Enhancements | Streetscaping Enhancements | Landscaping Enhancements



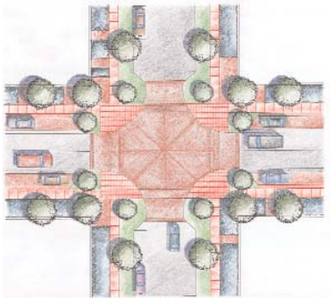
1. Streetscaping



2. Speed Table



3. Splitter Island



4. Raised Intersection

Perspective of eastern entrance to Upperville.

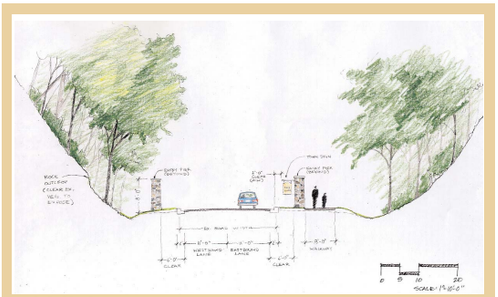
Perspective of a splitter island in Upperville.

Perspective of Route 50 near the post office.

Perspective of western entrance to Upperville.

The Concept Plan - Middleburg

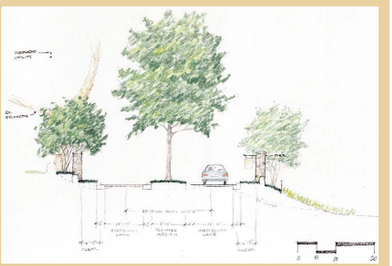
Traffic Calming Measures



Middleburg West Entrance Feature

Reconfigure Intersection

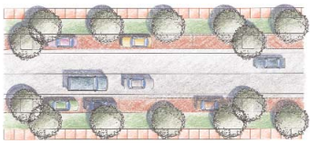
Raised Intersection



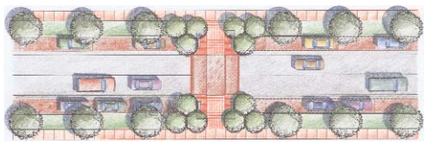
Middleburg East Entrance Feature

Prelude to Gettysburg Battlefield Site

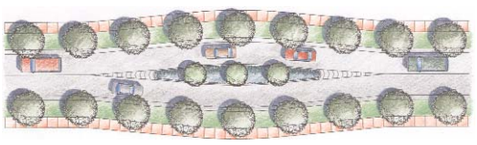
Transition Area | **Landscaping Enhancements** | **Streetscaping Enhancements** | **Transition Area**



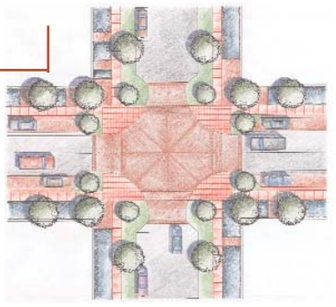
1. Streetscaping



2. Speed Table



3. Splitter Island

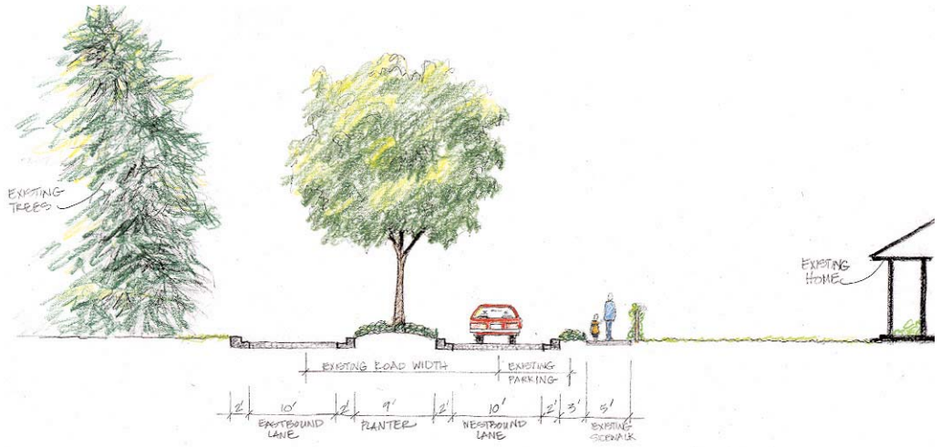


4. Raised Intersection

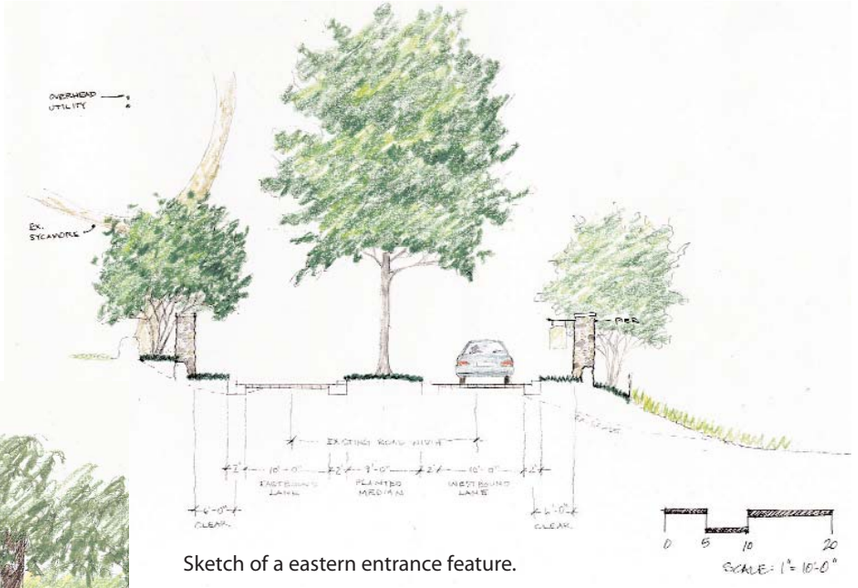
The Concept Plan - Middleburg

Design Sketches

Realignment of Marshall Street/Madison Street intersection.



Sketch of a western entrance splitter island in Middleburg.



Sketch of a eastern entrance feature.

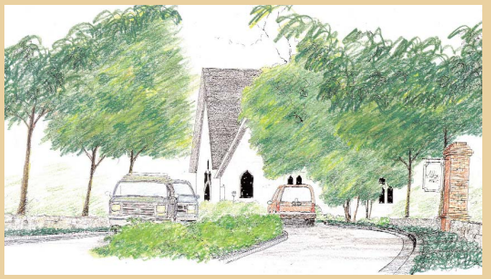
Sketch of intersection Route 50 and S. Madison Street.

The Concept Plan - Aldie

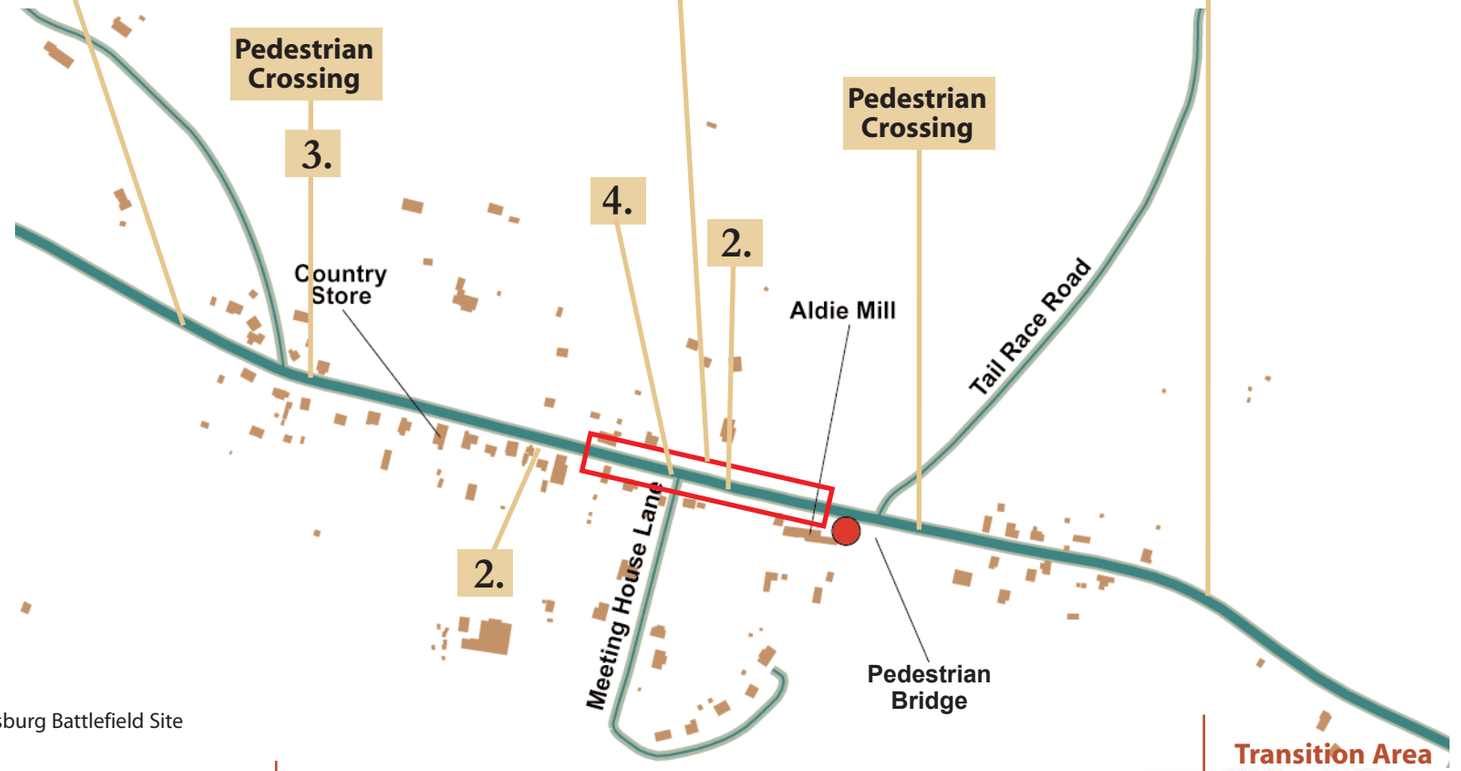
Traffic Calming Measures

Aldie West Entrance Feature

Introduce Horizontal Deflection



Aldie East Entrance Feature

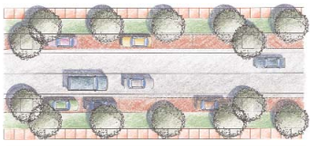


Prelude to Gettysburg Battlefield Site

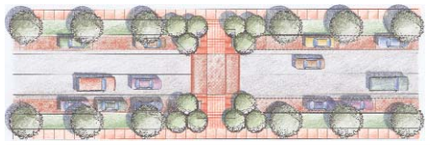
Transition Area

Transition Area

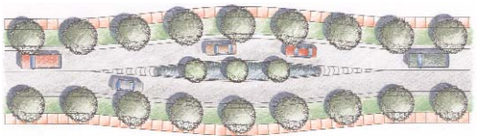
Streetscaping Enhancements



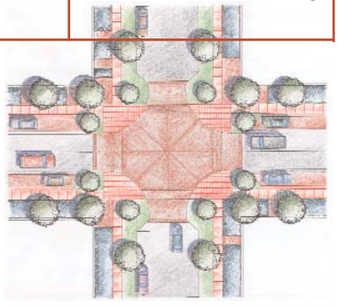
1. Streetscaping



2. Speed Table



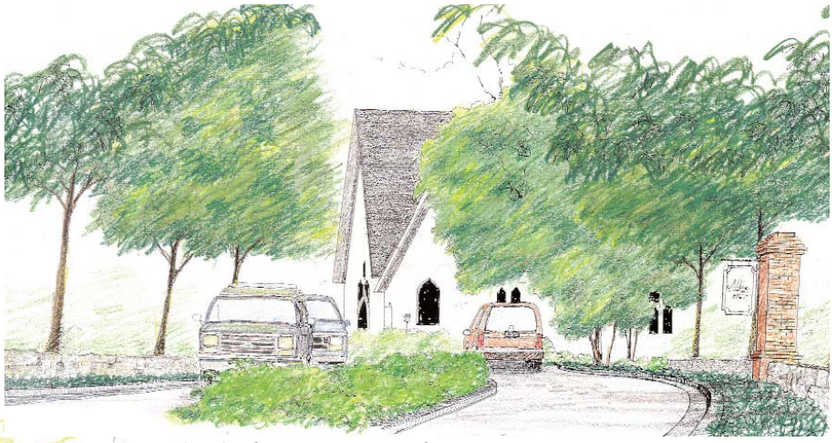
3. Splitter Island



4. Raised Intersection

DESIGN SKETCHES

Sketch of Route 50 realignment through Aldie.



Sketch of eastern entrance feature

Sketch of western entrance feature.